





This symbol is to alert the user of the presence of dangerous voltages inside the enclosure of the Super Controller. To reduce the risk of electric shock do not remove any parts of the Super Controller.

*Read all the instructions before connecting or operating the Super Controller. Pay particular attention to the safety information. Keep this manual so you can refer to these safety instructions.*

**WARNING: There are no user serviceable parts inside. Refer all servicing to qualified service personnel.**

**WARNING: To reduce the risk of fire or electric shock, do not expose the Super Controller to moisture or water. Do not allow foreign objects to get into the enclosure. If the unit is exposed to moisture, or a foreign object gets into the enclosure, immediately disconnect the power cord from the wall. Take the unit to a qualified service person for inspection and necessary repairs.**

Clean the Super Controller only with a dry cloth or a vacuum cleaner.

Place the Super Controller on a fixed, level surface strong enough to support its weight. Keep the Super Controller away from radiators, heat registers, stoves, or any other appliance that produces heat.



This symbol is to alert the user of important operating instructions in the owner's information accompanying the Super Controller.

If the Super Controller is placed in an enclosure, there must be sufficient ventilation of the enclosure to allow proper cooling.

Connect the Super Controller to the power outlet only with the supplied 3-pin grounded power supply cable or an exact equivalent. The cable should be connected to a properly grounded 3-pin wall outlet. Do not modify the supplied cable in any way. Do not use extension cords.

Do not route the power cord where it will be crushed, pinched, bent at severe angles, exposed to heat, or damaged in any way. If the cable shows any sign of wear or damage, immediately stop using it and obtain a proper replacement from a qualified service agency or from the Systemline service department.

If the Super Controller shows signs of improper operation, or if it has been dropped or damaged in any way, immediately disconnect the power cord from the wall. Take the Super Controller to a qualified service person for inspection and necessary repairs.

#### **GUARANTEE**

All products are covered by a 2 year guarantee for parts and labour. Site visits are not covered by this guarantee and will normally result in a call out charge if such a visit is requested or deemed necessary.



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## 1.1 Basic Architecture

The Systemline Super Controller MultiRoom Control System distributes audio signals from a single set of source components to as many as four separately controlled remote zones or listening areas. The centrally located Super Controller contains source selection, microprocessor controlled communications circuitry, and independent preamplifier/ power amplifier sections for all zones. A number of equipment source codes are held within the Controller enabling instant compatibility with the most popular component brands.

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## 1.2 Controlling the Remote Zones

Users can select either of two ways to control remote zone operation. The first is the RHS hand held remote. This generates infrared (IR) control pulses read by the wall-mounted IMS Display/Eye. The IMS Display/eye then transmits commands to the Super Controller through hard-wired connections.

The second method uses the optional wall-mounted KMS Keypad to transmit commands directly to the Super Controller. The KMS is also hard-wired to the Super Controller.

Users can select a combination of sensor and keypad operation for any zone. The system accepts inputs from up to two Display/Eyes and two keypads (for a total of four input devices) per zone.

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## 1.3 System Flexibility

The Systemline Super Controller MultiRoom Control System is exceptionally flexible. In addition to the Super Controller, a simple two zone system might include just one RHS hand held controller/IMS IR Display/Eye combination for one zone and one KMS keypad in the second.

In its most elaborate form, the Super Controller system accepts commands from four separate zones via eight IR Display/ Eyes and eight additional keypads.

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## 1.4 Surround Sound

Each zone has the provision for a plug in Surround Sound Processor Card. Further information not available at the time of publication, please enquire for details.

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## 1.5 System Highlights for Installers

1) Keypad or Handset Operation. No time consuming programming required! Up to 2 Keypads and 2 Eyes can be connected to any one Zone simply by daisy chaining one to the other!

2) All Eyes and Keypads are interchangeable between Zones for easy installation. Simply set the DIP switch on the Eye to the Zone address.

3) Built in equipment codes for YAMAHA, SONY, DENON, PIONEER, PANASONIC, PHILIPS, MARANTZ, PANASONIC and PACE components. These are set-up in a matter of seconds with the Controller Handset. There is even an option for waking up components when they are first switched ON from a remote location.

4) A single button operation for source selection and activation of Play command.

5) The Super Controller features a switched mains AC outlet, source components can be powered 'Totally Off' from any remote Zone. Power is re-activated simply by selecting any input in any Zone.

6) All source components can be stopped and Zones put into Standby with a single command: just by holding the Standby Button down for 3.5 seconds.

7) A built in Paging Input allows Zones to receive PA announcements or Mute when the Doorbell rings!

8) The System incorporates a near Universal Infra Red Link. Simply point any remote at an IMS to relay the command back to the source components.

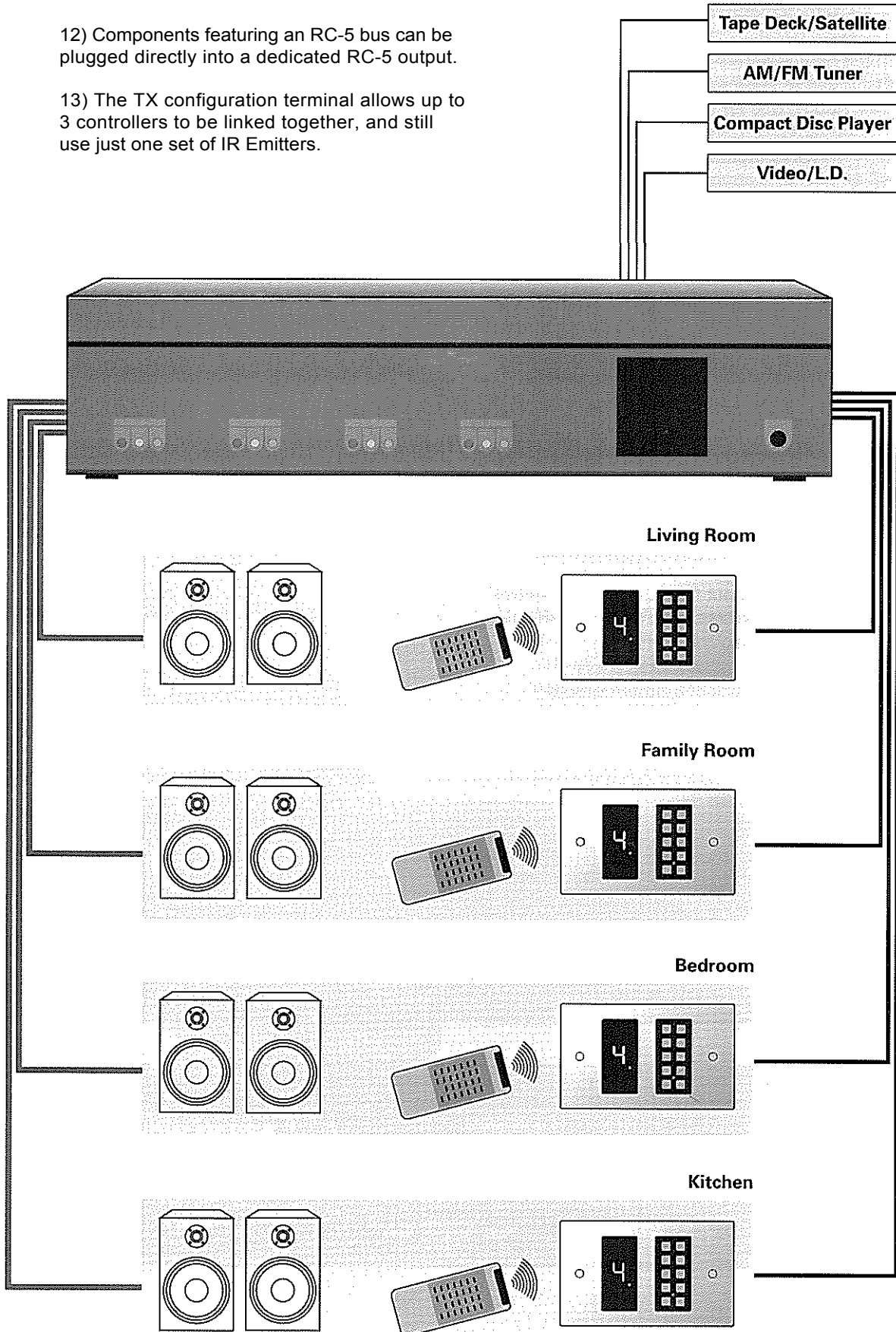
9) The Controller can easily be upgraded for use with Dot Matrix Display and Alarm Clock Facility.

10) A Surround Sound Matrix socket is included on each Zone for future compatibility.

11) Four Infra Red 'Window Emitters' can be plugged directly into dedicated mini jack sockets.

12) Components featuring an RC-5 bus can be plugged directly into a dedicated RC-5 output.

13) The TX configuration terminal allows up to 3 controllers to be linked together, and still use just one set of IR Emitters.

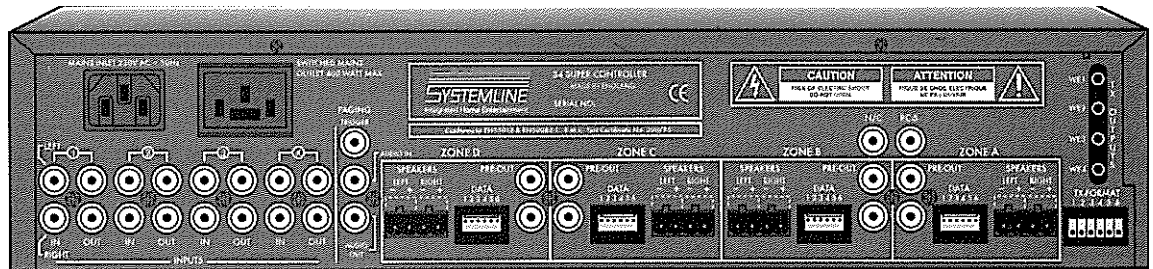
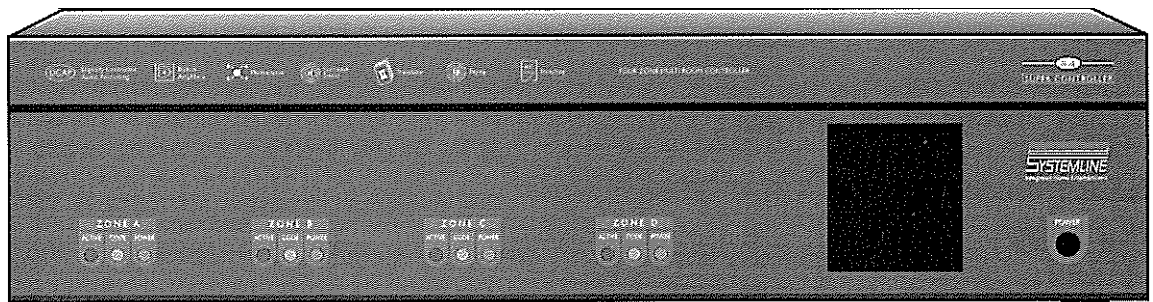


Section 1 • System Overview

## 2.1 Super Controller

The Super Controller is the heart of the Super Controller Multi-Room Control System. It features:

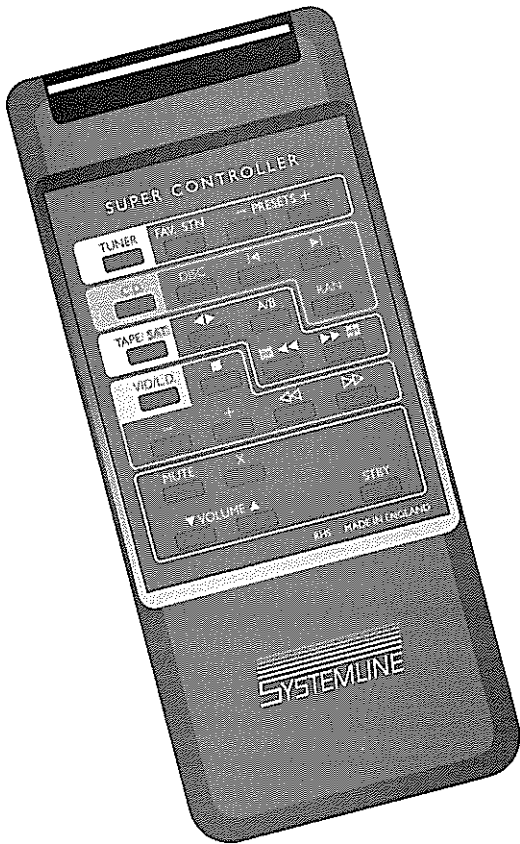
- Four separate microprocessor-controlled stereo preamplifier/power amplifier sections, one for each remote zone
- PHONO inputs for up to four sources
- "Loop through" PHONO outputs which allow these sources to connect directly to an additional entertainment system if desired
- PHONO line level preamplifier outputs
- Quick Fit speaker plugs and sockets
- PHONO line level input/output for paging audio source
- Control data input for each zone is via industry-standard 6 pin IDC/Method connectors (Supplied)
- PHONO output for RC-5 remote control protocol components (Direct connection via RC-5 bus)
- Four mini-jack IR emitter outputs
- One A.C. mains outlet with 400 watts capacity, switched to allow easy remote control of total system power if desired
- Front panel LED indicators for Power On/Off, zone status, command pulse processing
- High power front panel IR "Flood" emitter to transmit remote zone commands to associated source components
- PHONO paging 'Trigger' input for activation by suitable telephone and doorbell systems



## 2.2 RHS IR Remote Control

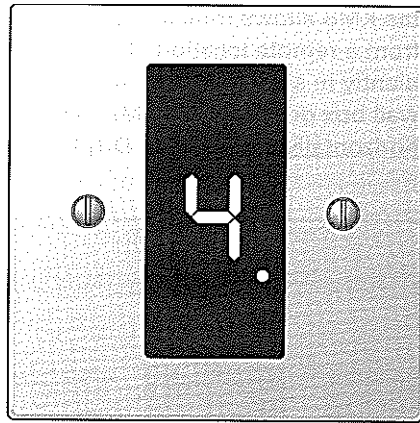
The RHS remote control serves a dual purpose. In addition to providing dedicated pushbuttons for the most needed functions of both the Super Controller and source components, it also serves as a quick set-up tool during initial configuration. Normal operating mode is explained in Section 6.2. Details of initial set-up will be found in Section 5.13.

The RHS has a special high intensity IR transmitter. In conjunction with the system's sensitive receiver modules, this transmitter assures reliable operation under a wide variety of conditions.



## 2.3 IMS Display/Eye

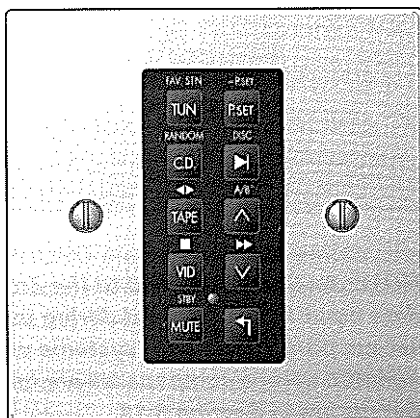
The wall-mounted IMS Display/Eye receives commands from the RHS hand held remote and, after processing to ensure maximum data integrity, sends these codes to the Super Controller. In addition, the IMS provides a continuous system status check at each remote location by displaying a range of easily-understood alphanumeric characters. You'll find details of the display in Sections 5.13 (Set-up Sequence) and 6.4 (Operation).



**NOTE:** An IMS connected to the Zone A data input **MUST** be used during initial set-up, particularly with systems where non RC5 source components are included. Details are in Section 5.13.

## 2.4 KMS Keypad

The KMS Keypad provides a remote zone control alternative to the RHS. The keypad can be used as a stand-alone control device although it is most functional with the IMS Display/Eye. Its 10 key design is the optimum balance between flexibility and simplicity. Zone input choice, zone volume up/down and mute are single key stroke commands. A maximum two-key sequence accesses more sophisticated source operation ("next disc" on a multiplayer CD for example). In addition, the KMS allows total system shut-down from a remote location. It mounts conveniently in a standard single 46mm deep in wall box or in a dual width box mounted horizontally with an IMS Display/Eye.



## 2.5 Data Cable and Connectors

The data path between the Super Controller and IMS Display/Eyes and KMS Keypads must be made with cable with six conductors plus a braided outer shield. We recommend Systemline Cable SL-C for best results. Other six conductor + shield cable may be perfectly acceptable but the Super Controller system data connectors work only with cables using 24 gauge conductors. Make sure that all data cables conform to this requirement.

Data cable termination is via industry-standard 6 pin connectors made by Methode and others. (The Methode part number is 1300-106-424.) Pin-out configuration and termination hints are found in Section 4.14.

## 2.6 Speaker and Cable Connections

Unshielded two conductor 42 Strand QED speaker cable is the minimum acceptable standard for connections between the Super Controller and zone loudspeakers. For particularly long runs or where there is a requirement for the best possible sound quality, QED Qudos Speaker Cable should be used.

The Super Controller amplifier outputs are connected via quick fit 2 way speaker plugs with screw terminal connection. These connectors are suitable for wire gauges up to 2.5mm<sup>2</sup>

## 3.1 Initial Considerations

The Super Controller can be used in either of two basic ways.

- a) As a stand-alone control centre for a multi-zone distribution system using dedicated source components.
- b) As a control centre which shares source components with an existing music or home theatre system.

Specific system configurations will determine the best location for the Super Controller. See Section 3.2 immediately below for details.

Hidden in a cabinet in the hall or even under the staircase- the only access required is to change discs or tapes. See also Section 3.4 (Recommended A/V Wiring).

## 3.2 Super Controller Basic Set-up

### 3.2.1 Placement

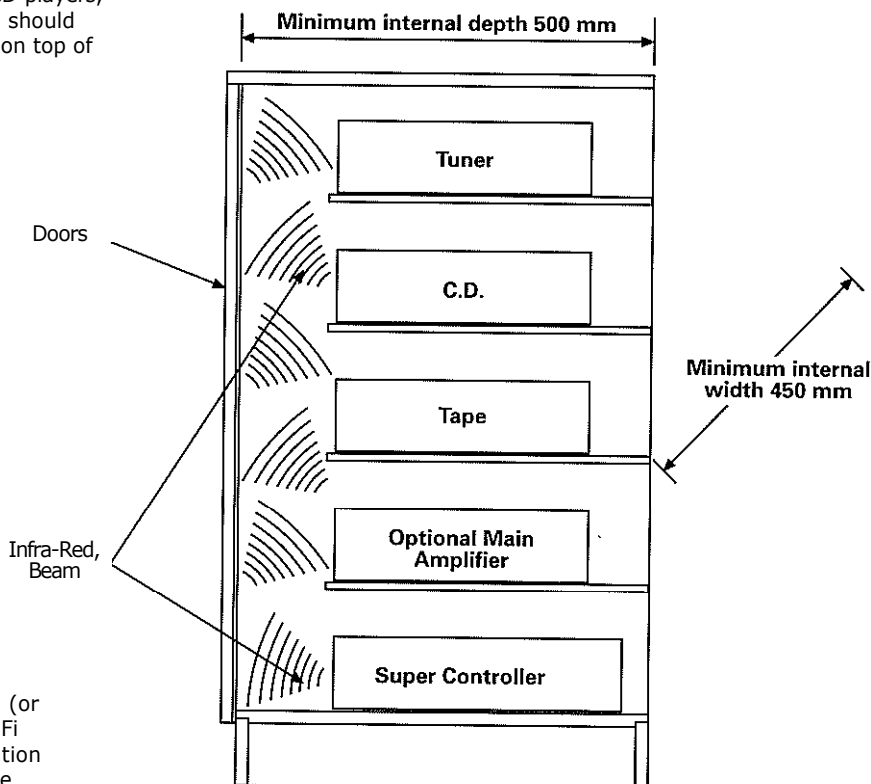
The Super Controller is designed to cosmetically complement high quality home entertainment components. Place it on a stable surface in an equipment rack or cabinet. Note that the Super Controller is slightly deeper than

most sources (tuners, CD players, cassette decks, etc.) and should not generally be placed on top of these units.

The exact location may be governed by existing wiring such as Satellite or TV points or be determined by the location of the

existing Hi-Fi system. In which case, the central location point will probably be in the lounge or family room. Alternatively, if the Multiroom System is to

operate separately from (or instead of) the main Hi-Fi system, the central location point could be anywhere.



Cut-away of equipment cabinet

Or on an open shelf see section 3.23

### 3.22 Connections:

Make sure that you have enough room to run all the connecting cables and dress them appropriately behind the Super Controller. Although we'll explain each connection fully in following sections of this manual, take a quick glance through the following list of possibilities and decide how much space you'll need. Also remember that these cables will make the Super Controller much more difficult to move when they are connected. Plan accordingly.

- a) Four pairs of PHONO to PHONO interconnects - one from each source.
- b) Four more pairs of PHONO to PHONO interconnect cables - one each to the appropriate input of the main system's preamplifier, etc., from the corresponding "loop through" output on the Super Controller (These will not be needed if the Super Controller is used as a stand-alone Controller).
- c) Up to eight QED speaker cable pairs (two for each zone) terminated with quick fit plugs.
- d) Four six-conductor+shield (SL-C) data cables, each terminated with the proper IDC connector.
- e) One shielded PHONO to PHONO interconnect for RC-5 remote control code connection. (If required)
- f) Up to four pairs of PHONO to PHONO interconnects to power amplifiers from the corresponding zone's "Pre-out" terminals. (If required)
- g) Up to four IR Window Emitters for connection to the Super Controller's TX Infrared outputs. (If required)
- h) Additional PHONO to PHONO shielded cables and loudspeaker connections as required for systems using more than one Super Controller amplifier.
- i) Up to six "TX-FORMAT" terminal block jumper wires needed when cascading multiple Super Controllers

We STRONGLY RECOMMEND that you attach a tag or strip to each cable and wire that permanently and positively identifies it. This will help in any required trouble

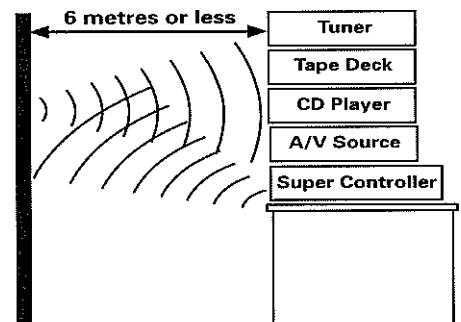
shooting immediately after the installation as well as make future service calls or system add-ons much less frustrating.

Avoid vague identifiers ("Tape Deck," for example) in favour of carefully defined lines such as "To Input 3 from tape deck." However well you remember each installation just after completing it, you WILL FORGET by the next time you see it again.

### 3.23 IR "Flood" Emitter

The Super Controller has a high intensity front panel IR "flood" emitter designed to transmit commands from the remote zones to the appropriate source component. Although exact performance will vary, this high power transmitter has an effective operating range of approximately 6 Metres under normal conditions.

If the Super Controller is on an open shelf, the emitter's signal must first travel to an IR-reflective surface (an opposing wall, for example) and then to the source component.



*Keep total IR signal travel to 12 Metres or less. Remember that it must travel to a hard reflective surface and then back again.*

### 3.24 IR Emitter Jacks & Cabling

Remember that the Super Controller also has four rear panel IR output jacks for use with IR Window Emitters. Use these in situations where output from the front panel "Flood" IR emitter is blocked from the source components by a door, full depth shelf, etc.

### 3.25 N/C Jack

This PHONO connector, located just to the left of the RC-5 output, is unused at present.

## 3.3 Zone Configuration

### 3.31 Basic Zone Complement

Each remote zone includes at least one control code generator and a pair of loudspeakers.

### 3.32 Control Code Generators

The code generator may be an RHS hand held remote and an IMS Display/Eye combination. It can also be a stand-alone KMS keypad. Details are in Sections 6.2 (RHS Hand-held Remote Control) and 6.3 (KMS Keypad).

Remember that the IMS Display/Eye also provides visual clues to total system operation. Details are found in Sections 5.13 (Setup Sequence) and 6.41 (Overview).

Most zones will use multiple control code generators with the combination of one IMS Display/Eye and one KMS Keypad being the most common.

Mounting both the Display/Eye and Keypad in one double-width wall box carries several advantages:

- a) It simplifies the installation - all control cables run to a single location.
- b) It focuses the user on one location - he or she either walks to the keypad or aims the hand held remote at the wall-plate.

The IMS Display/Eye reads infrared signals generated by the RHS hand held remote and, after translating them into a digital code that is highly resistant to interference, sends them to the Super Controller. The KMS simply translates key pushes into digital code before sending them to the Super Controller.

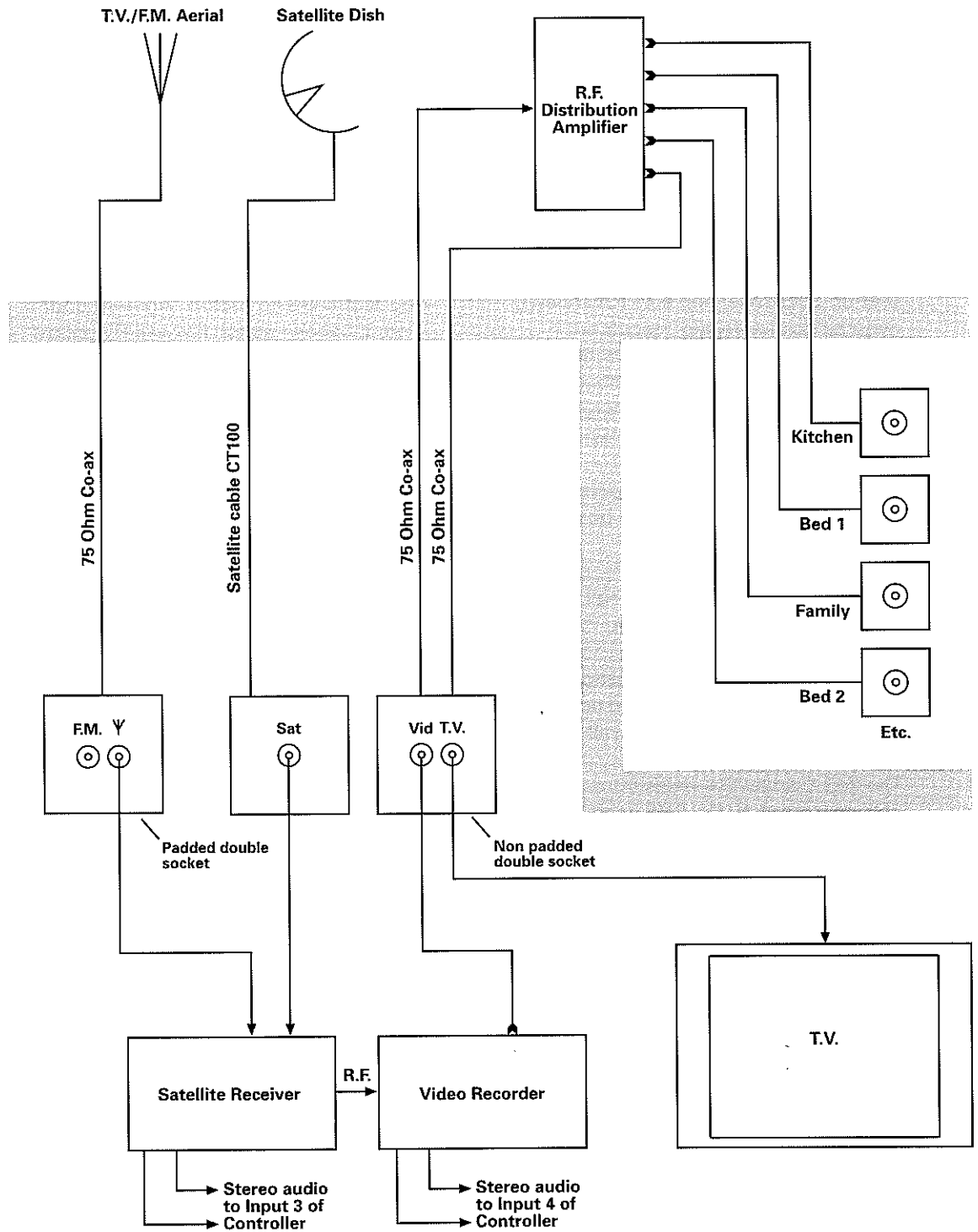
### 3.33 Loudspeakers

These will vary with installation requirements and user expectations. The Super Controller's amplifier sections are optimized for impedance loads of four (4) ohms or higher.

A full range of Systemline Hi-Fi Standard Ceiling Speakers are now available, please ask for details.

## 3.4 A/V Wiring

### 3.41 Recommended Wiring Configuration For Video & Satellite Distribution.



## 4.1 The Super Controller

### 4.11 Source connections

Connect LINE LEVEL sources (CD player, tuner, etc.) to the Super Controller's rear panel as follows.

- a) Using shielded PHONO-PHONO cables, connect the source's output to the corresponding input on the Super Controller. Connect analog outputs from the source components as indicated to assure clear operation with both the RHS hand held remote and the KMS Keypad:

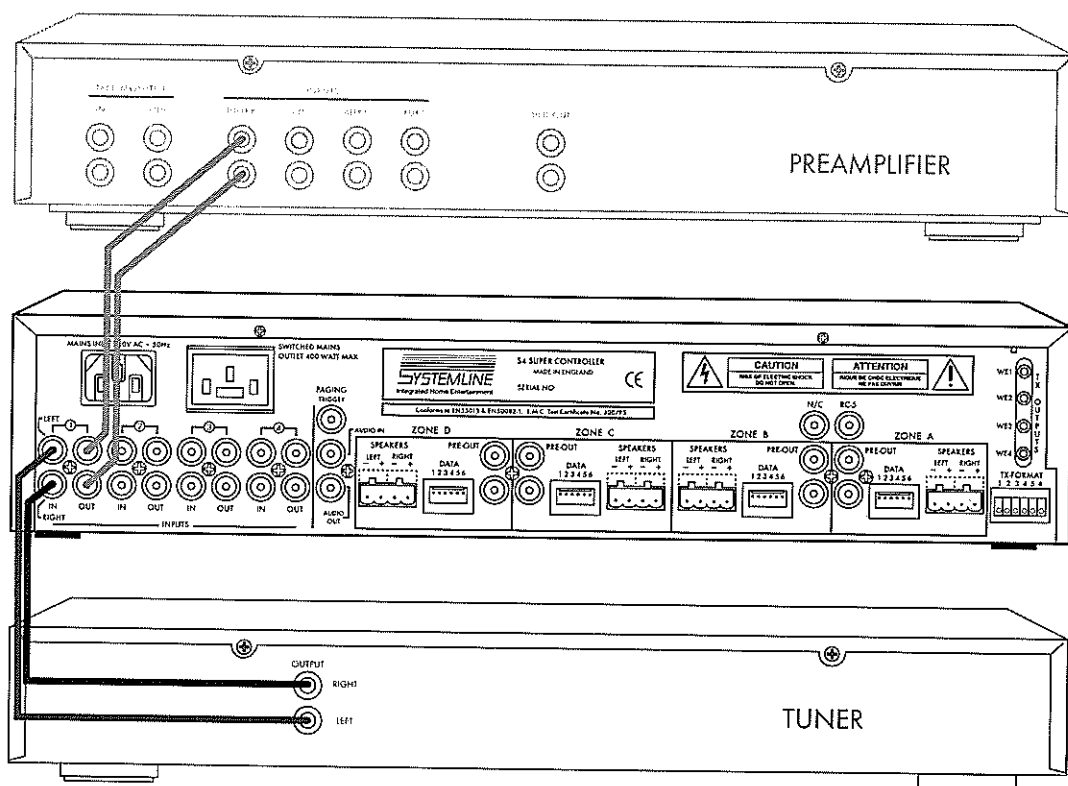
Tuner > Input 1  
 CD player > Input 2  
 Tape Deck/Sat. receiver > Input 3  
 Video/Laser disc > Input 4

Make sure to observe correct channel continuity from source to Super Controller. The Super Controller's PHONO inputs are labelled for easy identification with Left Channel connections on the top row and Right Channel connections on the bottom row.

**NOTE 1:** The Super Controller does not accept a phono cartridge's output directly. If required, use a separate phono preamp (such as QED Discsaver) to boost phono signal to line level.

**NOTE 2:** To simplify system operation, we strongly suggest using only FIXED LEVEL source outputs to the Super Controller. If no FIXED LEVEL outputs are available, use variable outputs but make sure that the source component's level control is turned up sufficiently but not so high as to overload the Super Controller's inputs.

- b) If the source is shared by another system, connect the appropriate Super Controller source output to the appropriate input of the main system's preamplifier, etc.



Tuner connected to Source 1 input with optional pass-through to preamp for shared use with separate system.

## 4.12 Speaker Cable Connections

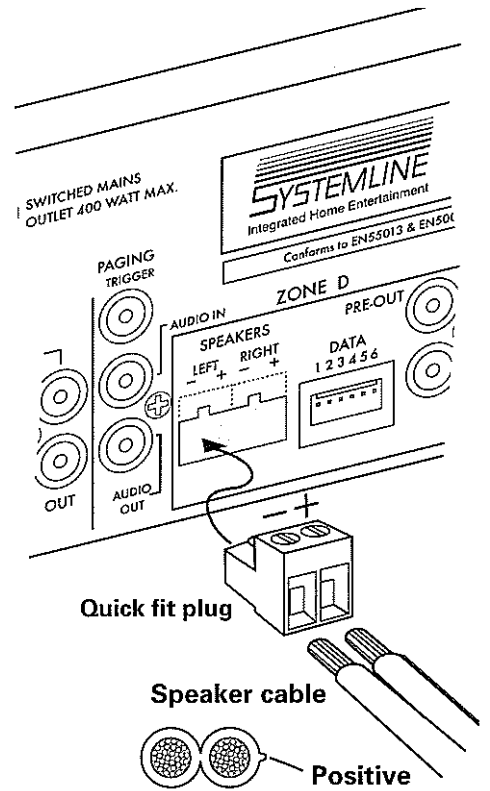
*NOTE: These Zone Connection instructions focus on one zone only. Connections for all other zones are identical except for the mirror-image connector placement on alternate zones.*

Use the supplied quick fit terminals for all speaker cable connections.

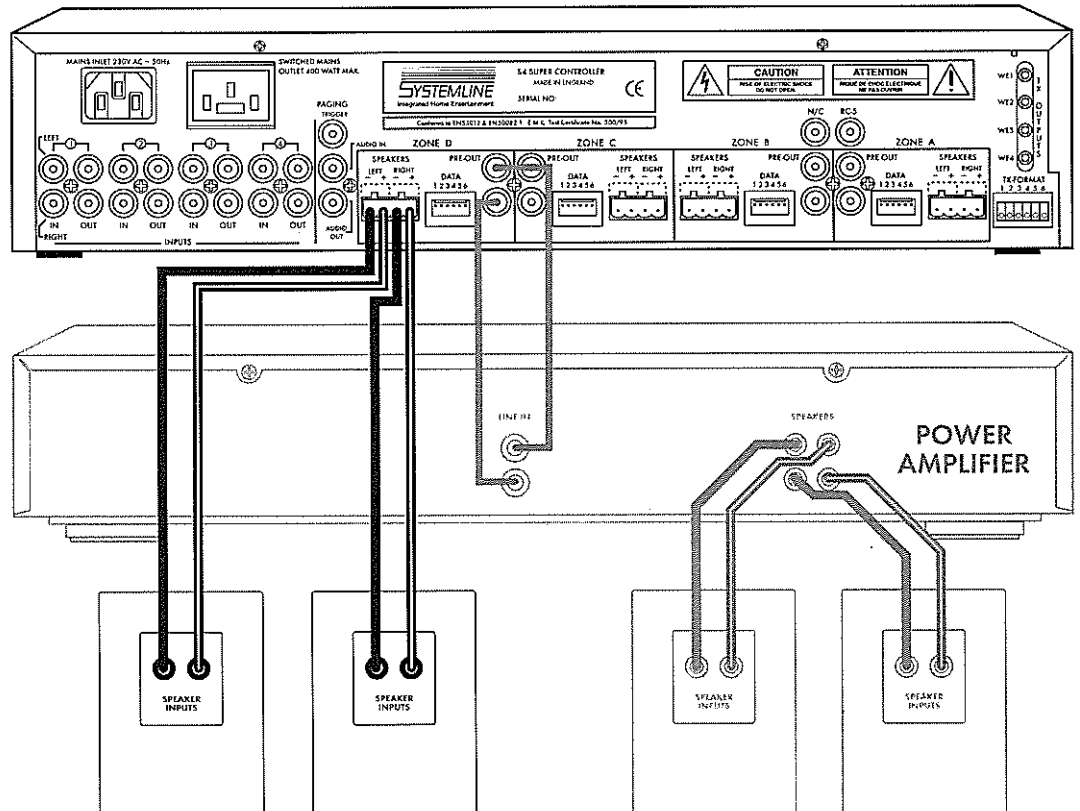
Strip back each conductor's outer insulation by 6mm, Insert bare wire into quick fit plug and secure using the screw terminal fixing. Take care to ensure proper polarity (note "+" is normally identified by a fine rib running along one edge)

**BE CAREFUL AND BE PATIENT. This is an admittedly tedious task, particularly when you are hooking up speakers for all four zones, but it is essential for maximum system enjoyment.**

"Out of phase" loudspeaker hookups (where one speaker in a stereo pair is inadvertently connected "+" to "-" and vice versa) may not be immediately noticeable but will not be as pleasing in the long term as a properly connected stereo pair.



The long runs from amplifier to speaker typically found in multi-zone installations demand heavy gauge, low resistance speaker wire. Small diameter wire reduces effective amplifier power and adds



Speaker outputs from one zone of the Super Controller. Also showing preamp output connections for use with optional power amplifier.

substantial distortion to the audio signal. Avoid problems by following these minimum recommendations:

<b>Under 20 mts</b>	<b>QED 42 STRAND</b> <b>0.75mm<sup>2</sup> (minimum)</b>
<b>More than 20 mts</b>	<b>QED QUDOS</b> <b>2.5mm<sup>2</sup></b>

**Loudspeaker runs over 100 mts are discouraged.**

#### 4.13 Preamp outputs

Two PHONO jacks (Left and Right Channel) labelled "Pre-out" provide line level output controlled by the corresponding zone command devices. If a zone requires additional amplification, use PHONOPHONO shielded interconnects from these outputs to a separate power amplifier's unbalanced line inputs.

Each zone's preamp output is fully buffered and may be used either independently or with the Super Controller's internal amplifiers to provide additional flexibility for demanding installations.

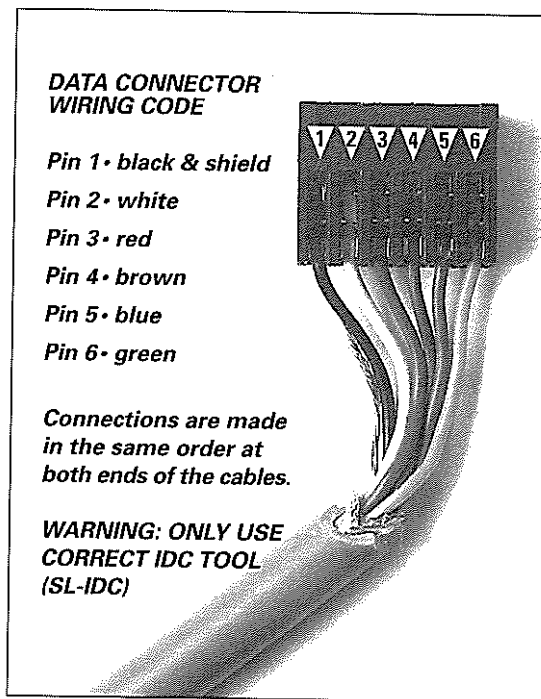
#### 4.14 Data cable connections

Data communication to and from the Super Controller and the remote zone's IMS Display/Eyes and KMS Keypads is via 6 conductor shielded cable. We recommend QED Systemline Cable. (Note that the IDC connectors only accept cable with 24 gauge conductors.)

We also recommend that you run each zone's data cable and speaker cables together to save time. There is absolutely no performance penalty for doing so.

The shield is absolutely essential in maintaining data integrity over the long runs between the controller/amplifier and a zone's control code generating devices. Make sure that the shield is firmly connected at both the Super Controller and at any command device terminal.

**NOTE: Only one data cable needs to run from the Super Controller to each zone. Multiple display/eye and keypad combinations in one zone should be wired via series connections detailed in Section 4.3.**



Connectors for the IMS Display/Eyes and KMS Keypads should be wired to follow the same color coding.

The supplied IDC/Methodo connectors need to be 'crimped' to lock to the data cable's 24 gauge conductors. IDC tools are available separately.

**NOTE: Do not use a screwdriver, metal ruler or knife blade to "crimp" these connections. You may think these tools will work but you will be mistaken. USE THE DEDICATED IDC TOOL SPECIFICALLY DESIGNED FOR THESE CONNECTORS.**

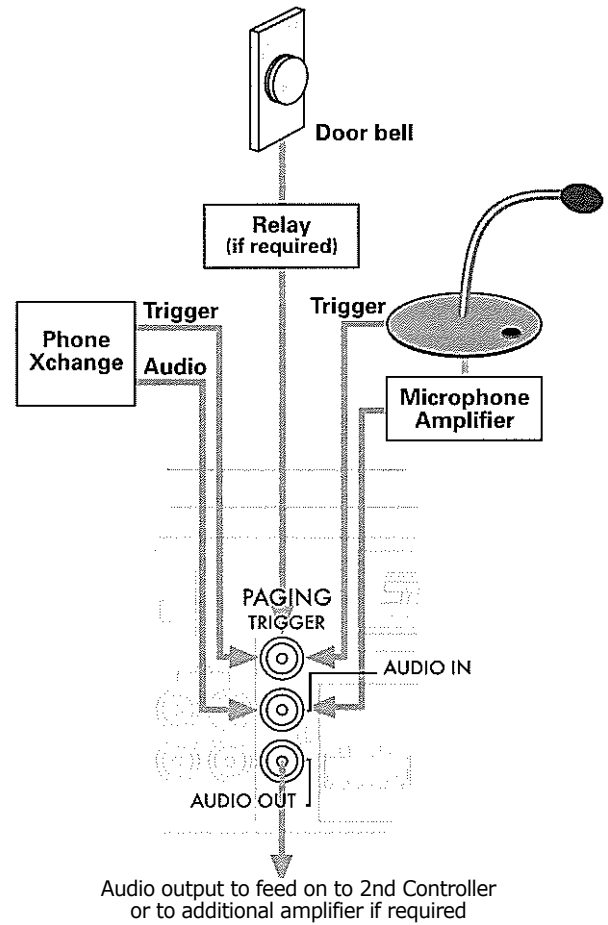
- Strip about 40 to 50 mm of the outer cable insulation using a wire stripper, cutting pliers or sharp knife.
- Separate the braided outer shield wires from the conductors and twist them into one "pig-tail."
- DO NOT strip insulation off the six individual conductors as the connector automatically makes contact with the conductor core when crimped.
- Place the shield pig-tail into slot 1 (left hand side) of the connector and press down *lightly* with the crimping tool to hold it in place.
- Place the BLACK conductor immediately on top of the shield pig-tail in slot 1, hold it in place and push down harder with the crimping tool until you hear a slight "click".

The shielded pig-tail and black-insulated conductor should now be locked into slot 1. (The clicking sound also tells you that the connector slot contacts have pierced the conductor's insulation.) Test the connection by pulling gently on both shield and conductor.

- Continue the process following the colour code guide above until all other conductors are locked in the appropriate connector slots. Remember that slot 1 is the ONLY ONE to get both the shield and a conductor. All other slots receive a single conductor.

After attaching the cable conductors to the connector, snap it onto the appropriate zone's 6 pin data terminal on the Super Controller's rear panel. Be careful to centre the connector over the terminal pins before inserting.

The maximum data cable length for guaranteed operation is 100 mts. Even longer lengths may be practical in some installations with low RF (Radio Frequency) and EMI (Electro-magnetic interference).



## 4.15 Paging Input

The paging input allows announcements to be made over the system, or if required, for Zones to be muted: this may be useful when used in conjunction with a door bell.

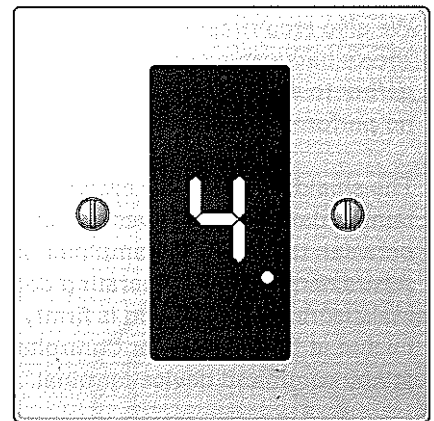
To function, the paging needs to be activated from an external source. This can be achieved via the 'Paging Trigger' phono socket. Any device which shorts the trigger input, will cause the Controller to enter its paging mode.

The 'Paging Audio In' phono socket should be connected to the audio output from the announcement system (Internal Telephone exchange/Microphone amplifier).

An output can be taken from the 'Paging Audio Out' socket if a second Controller is used or if an additional amplifier is required.

## 4.2 Zone Control Devices

### 4.21 IMS Display/Eye



- The IMS Display/Eye mounts in a single - 46mm deep wall box or in a double width box with the KMS keypad. MK type 877ZK or similar (single box) or MK Type 878ZK or similar (double box)

**PLACEMENT SUGGESTIONS:** Exact placement will vary with each installation but we strongly recommend AGAINST placement where the IMS will be exposed to direct sunlight, powerful fluorescent illumination or the output of a high intensity spotlight, etc. These light sources contain high levels of infrared energy themselves and may cause intermittent operation by saturating the IMS.

Also, avoid infrared "loops" by making sure that an IMS Display/Eye is *not* placed where it might pick up signals from a source component's IR repeater or the Super Controller's IR "flood" emitter.

Lastly, make sure that each IMS is on a relatively uninterrupted "line-of-sight" path to all likely locations from which the hand held RHS remote might be used. You'll find the IMS/RHS combination much less susceptible to signal interference than other IR remote control links but conservative planning will ensure dependable operation under an even wider variety of conditions.

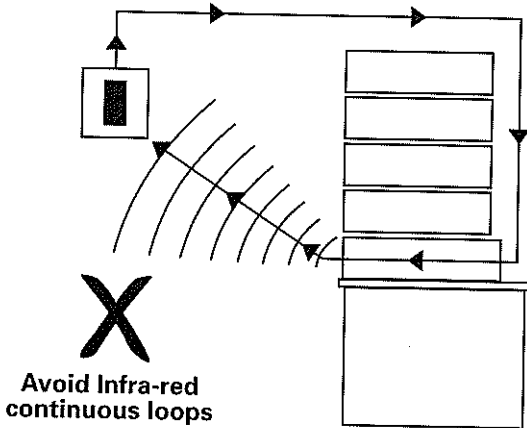
**INSTALLATION NOTE:** The IMS's rear circuit board is purposely mounted in the opposite direction compared to the board on the KMS to avoid a cable jam at the bottom of a double width wall box should both devices be mounted in one box. Thus, the IMS's IN and OUT data cable terminals will be at the "top" and the DIP switches at the "bottom" of the board when the IMS is properly installed.

- b) Each IMS *must* be set for the particular zone it is operating in. Set zone IDs by adjusting the IMS's board-mounted DIP switches as follows:

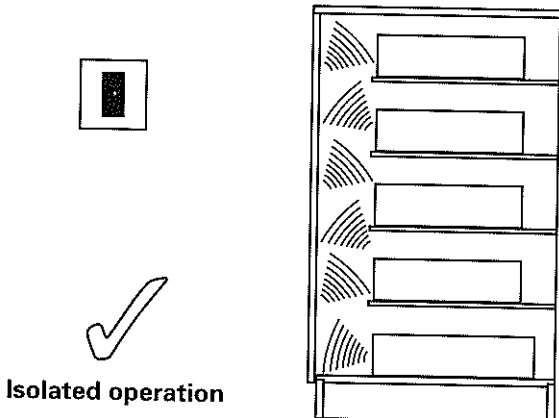
When setting the DIP switches, we suggest orientating the IMS so that the printed IDs on the circuit board can be easily read. After setting both DIP switches for the intended zone, invert the IMS before installing it in the box or the alphanumeric display will be upside down.

**Note:** Improper switch settings will not interfere with data communication TO the Super Controller so zone operations will be unaffected. However, improper switch settings will cause the IMS to display inaccurate and confusing system status information.

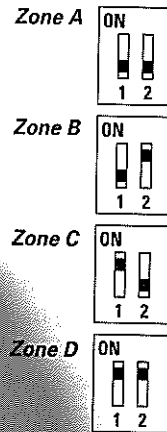
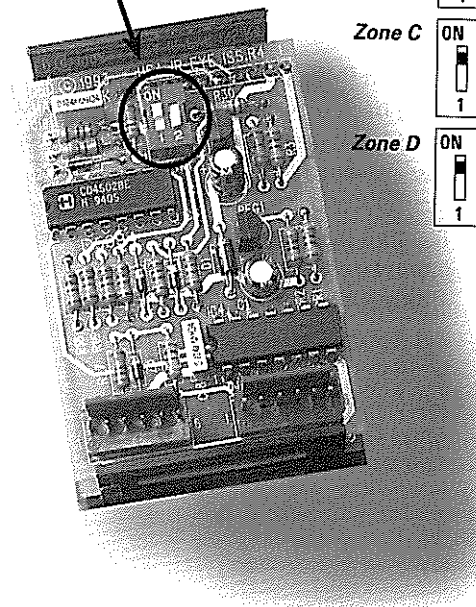
Lounge



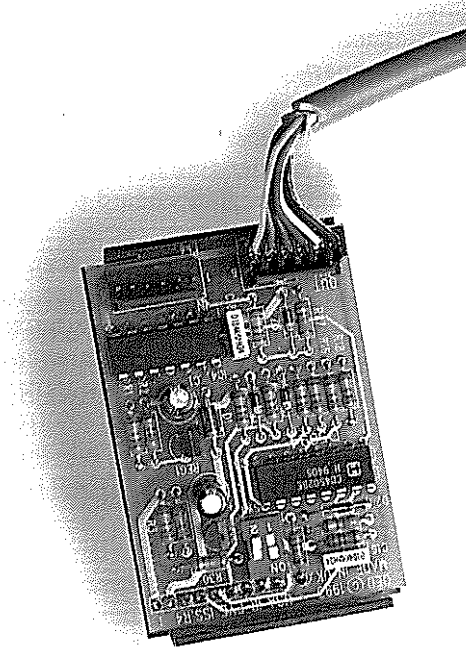
Lounge



Zone switches



- c) Data cable termination's and connections are made the same way as previously detailed in Section 4.14. Note that each IMS has two data terminals labelled "In" and "Out" respectively. See Section 4.3 below for zone connection strategies.



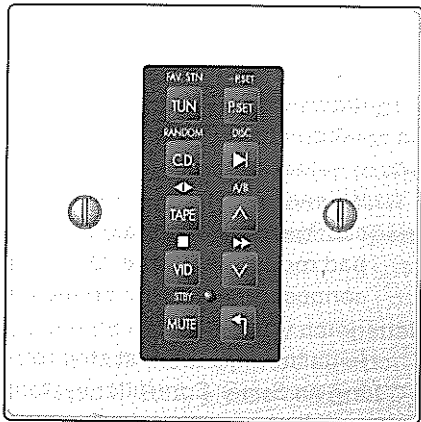
- d) Remember that an IMS connected to the Zone A data cable terminal **MUST** be used for initial set-up, particularly in systems where non-RC5 source components are included. Details will be found in Section 5.13.

#### **4.22 Fitting IMS & KMS Modules into Back Box & Wall Plates**

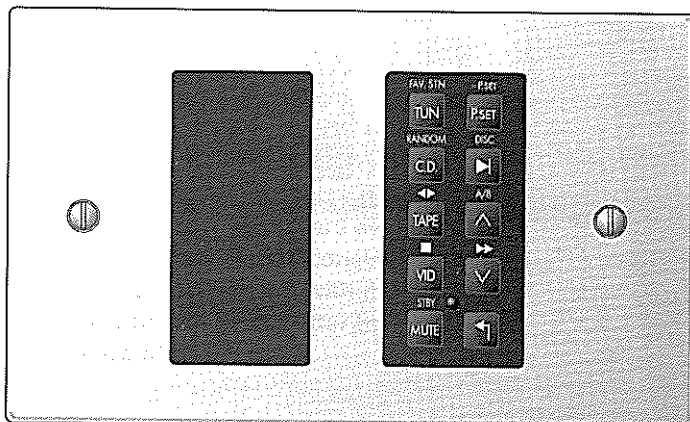
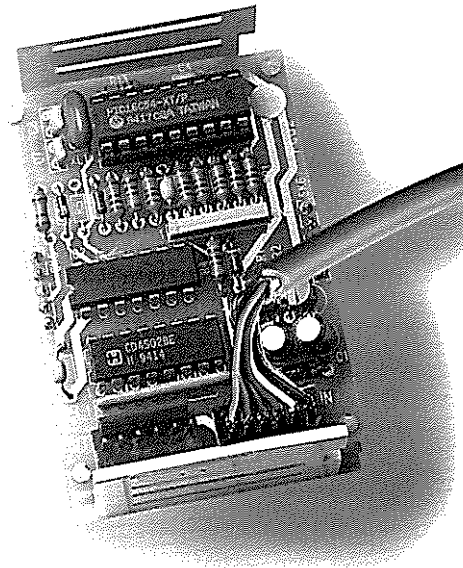
To fit an IMS or KMS module into a single gang back box, it is first necessary to bend back the top and bottom lugs to allow access.

To fit an IMS or KMS module onto a wall plate, simply peel off the protective strips along either side of the module and stick the module firmly to the back of the wall plate.

## 4.23 The KMS Keypad



- a) The KMS keypad mounts in a wall box in the same manner as the IMS Display/Eye. There are no restrictions on where the KMS can be located. Common sense and user convenience should be the determining factors. Avoid using the keypad in damp environments e.g. bathroom, outside area. Alternatively, the KMS can be mounted in a double-width wall box with an IMS Display/Eye. This is the most sensible arrangement from an installation viewpoint (fewer cable runs) but may not be practical in all rooms,
- b) KMS do not need to be set for particular zones as they do not display zone or system status information.
- c) Data cable termination's and connections are made the same way as previously detailed in Section 4.14. Each KMS has two data terminals ("In" and "Out") located at the bottom of its circuit board. See Section 4.3 immediately following for zone connection strategies.



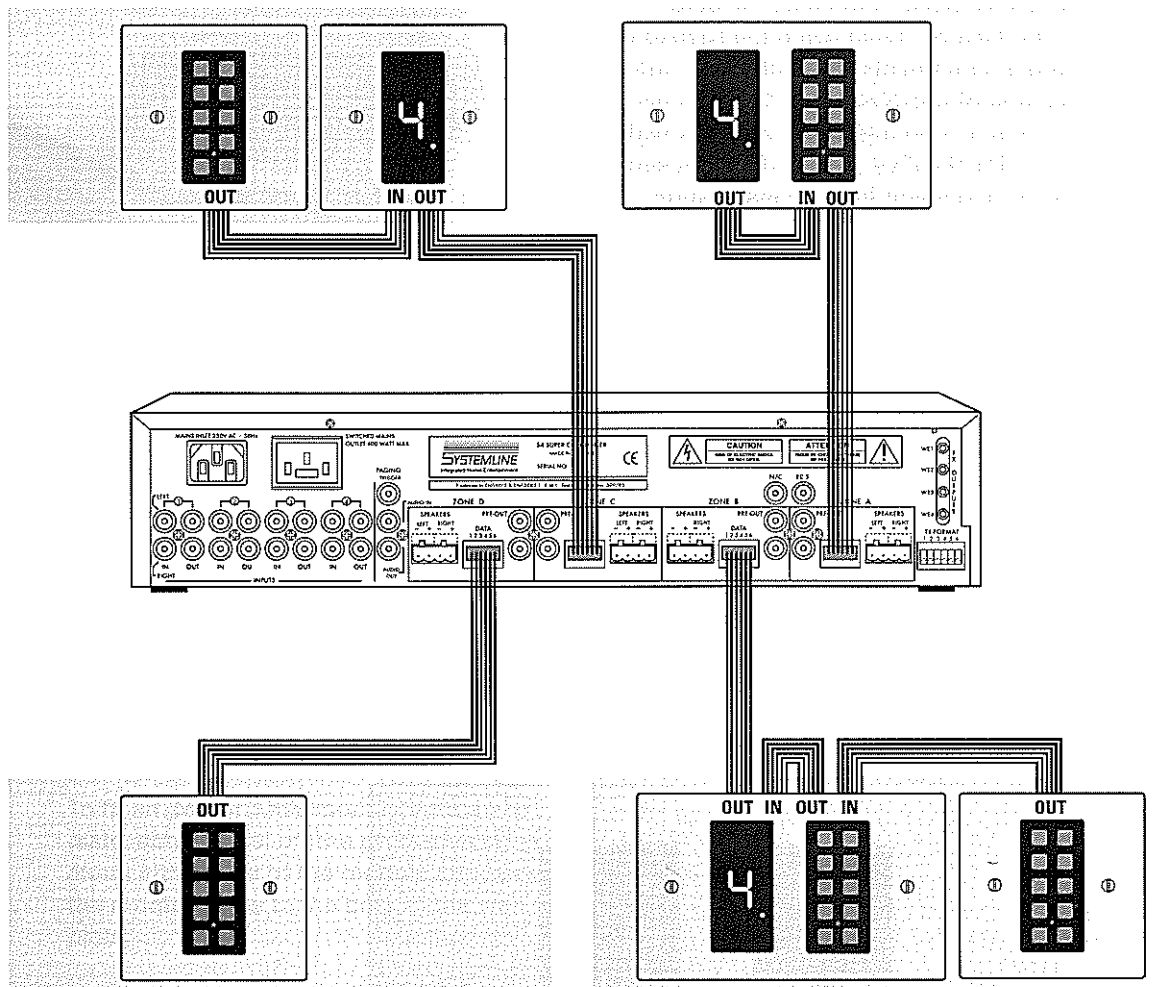
## 4.3 Zone Connection Strategies

- a) Each zone will support two IMS and two KMS. All the command devices for one zone should connect to each other in serial fashion using their appropriate circuit board-mounted "In" and "Out" terminals.
- b) Each IMS signals when it receives and processes a command. This happens regardless of whether the command was generated by a keypad or a hand held remote. However, a keypad located "downstream" of a Display/Eye will not trigger that sensor's command processing indicator.

Whenever possible, we suggest that you always wire an IMS/KMS double wall box so that the IMS is located "downstream" from adjacent KMS (i.e., between the KMS and the Super Controller). This assures that the Display/Eye always signals the user when the adjacent Keypad is used.

Whenever possible, we suggest that you configure each combined Eye and Keypad module, with the 'Out' of the Keypad connecting to the 'In' on the Eye.

Installation is the first step towards enjoying an Super Controller system. Proper setup ensures that the Super Controller will function optimally with all associated source components and provide total system control.



## 5.1 Source Component Setup

### **Important Note:**

**Equipment manufacturers do change their Remote Control Systems from time to time. It is therefore advisable to check the operation of a source component with the Super Controller before specifying.**

If you should encounter any compatibility problems with the supported components listed in 5.12, please notify QED by using the FAXBACK page in this manual. This will enable us to check that you have the latest software, and also provide codes for these components in the future.

### 5.11 Default operating mode

The Super Controller is factory set for use with Philips/Marantz source components. No adjustments are necessary if you wish to use these components.

### 5.12 Optional operating modes

The Super Controller supports a number of different equipment brands which are listed below:

- Tuner:** *Philips/Marantz (RC-5), Yamaha, Denon, Pioneer, Sony*
- CD:** *Philips/Marantz (RC-5), Yamaha, Denon, Pioneer, Sony*
- Tape/Sat:** *Philips/Marantz (RC-5), Yamaha, Denon, Pioneer, Sony, Pace (Satellite)*
- Vid/L.D.:** *Philips/Marantz (Video), Panasonic (Video), Sony (Video), Pioneer (Laser Disc)*

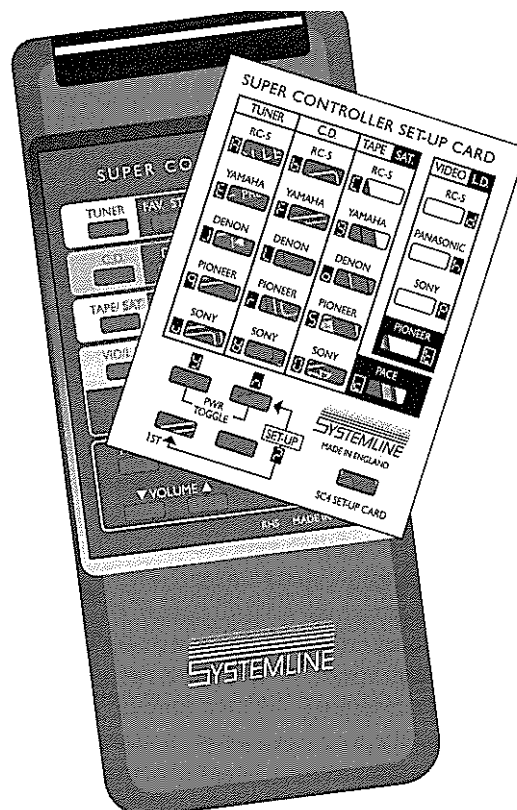
Because each Brand operates in a slightly different way, a command summary is given in Appendix A. Details are given as to exactly which commands are available for each component. Please consult this chart to familiarise yourself with the components and brands which offer the greatest ease of use.

### 5.13 Set-up sequence

- a) First locate Zone A's IMS Display/Eye. Optional operating modes CANNOT be changed from any other Zone or even from Zone A's (optional) keypad. If in doubt, send a command with the RHS hand held remote and monitor Zone A's green Code LED on the Super Controller's front panel: it will flash when the Super Controller recognizes and processes a command.

**NOTE: Remember that any IMS Display/ Eye can be connected to the Zone A data terminal for this procedure. Even if Zone A is equipped with a wall mounted Display/ Eye, it is probably more convenient to temporarily disconnect the data cable from that unit and substitute another IMS placed near the Super Controller and source components. Make sure that any IMS used in this set-up sequence has the circuit board DIP switches set for Zone A. (See Section 4.21 b for details.)**

- b) Select any input (Tuner, CD, Tape or A/V) on the RHS so that the corresponding number (1, 2, 3 or 4) shows on Zone A's IMS Display/Eye.
- c) Place the Set-up Card over the RHS's pushbuttons.



- d) With the RHS pointing at the IMS Display/ Eye, enter "Set-up" mode by pushing both Set-up buttons. To do so, depress the Set-up button marked "1ST" and hold it. Then push the right hand Set-up button. The IMS will display a "?" to indicate that the system is awaiting further instructions.
- e) Push the desired command code button of the input you want to change. You may select any combination of brands that you require but remember that only one brand may be selected for each input.

**Note:** The Pace Satellite is configured for use on the Tape Input.

Zone A's Eye will display the following characters to indicate your choice of custom command configuration.

<b>A</b>	-	<b>*RC-5 Tuner</b>
<b>b</b>	-	<b>*RC-5 CD Player</b>
<b>C</b>	-	<b>*RC-5 Tape</b>
<b>d</b>	-	<b>*RC-5 Video</b>
<b>E</b>	-	<b>Yamaha Tuner</b>
<b>F</b>	-	<b>Yamaha CD Player</b>
<b>g</b>	-	<b>Yamaha Tape</b>
<b>h</b>	-	<b>Panasonic Video</b>
<b>J</b>	-	<b>Denon Tuner</b>
<b>L</b>	-	<b>Denon CD Player</b>
<b>o</b>	-	<b>Denon Tape</b>
<b>P</b>	-	<b>Sony Video</b>
<b>q</b>	-	<b>Pioneer Tuner</b>
<b>r</b>	-	<b>Pioneer CD Player</b>
<b>S</b>	-	<b>Pioneer Tape</b>
<b>t</b>	-	<b>Pioneer Laser Disc</b>
<b>u</b>	-	<b>Sony Tuner</b>
<b>H</b>	-	<b>Sony CD Player</b>
<b>O</b>	-	<b>Sony Tape</b>
<b>c</b>	-	<b>Pace Satellite</b>

- f) After you've selected the proper command codes for all the component categories you wish to change, exit "Set-up" by holding the left hand Set-up button marked "1ST", and then by pushing the right hand Set-up button and immediately releasing both Set-up buttons.

The IMS's "STBY" indicator bar ("\_") will flash twice to signal that the system has stored chosen command codes, exited the Set-up mode and is now operating normally.

**NOTE: See Section 5.34 for further details on the "Power Toggle" command required when source components are used via the switched A. C. Outlet.**

**NOTE: For the new Code settings to take effect the controller MUST be turned OFF (using the front panel power button), and then turned ON again after 30 seconds.**

All changes are stored in non-volatile memory and can not be accidentally erased, even by unplugging the Super Controller. The only way to change command code operation is to access Set-up mode again.

For example, if you want to re-configure the system to operate with a Pioneer CD player and a Panasonic Video player, simply:

- a) Enter Set-up mode ("?" will show on the IMS).
- b) Push the button marked "Pioneer" in the C.D. Input column. ("r" will be shown on the IMS)
- c) Push the button marked "PANASONIC" in the VID/L. D. input column ("h" will be shown on the IMS)
- d) Exit Set-up mode ("\_" will flash twice on the IMS).

## 5.2 IR System and Control Codes

### 5.21 Overview

The Super Controller's IR system provides extensive remote control flexibility. With the possible exception of the points in Sections 5.22 and 5.23, nothing needs to be done to set up the IR system.

However, please note the following points:

- a) The IR link from a remote zone operates ONLY when that zone is active.
- b) The IR codes generated by the RHS hand held remote are Super Controller "system specific" codes and ARE NOT the same codes generated by a source component controller, even for functions that appear identical such as "CD play," for example. In other words, you can not use the RHS to directly control a Marantz CD player but must use it through an IMS Display/ Eye from a remote zone. The Super Controller system does the following:

A wall mounted IMS Display/Eye receives the remote's code sequence and translates it into proprietary 5 bit digital code.

This digital code travels over the data cable to the Super Controller.

-The Super Controller's translator card restores the code's original configuration (when required) and sends it to both the IR "flood" emitter and the rear panel IR outputs for use by the appropriate source component.

- c) In addition to passing Super Controller system codes, the IR system will pass ALMOST any IR code sequence from an IMS to a source component. This allows you to control equipment brands which are not supported by the internal translator card. (These few exceptions use a non-standard IR transmission frequency.)

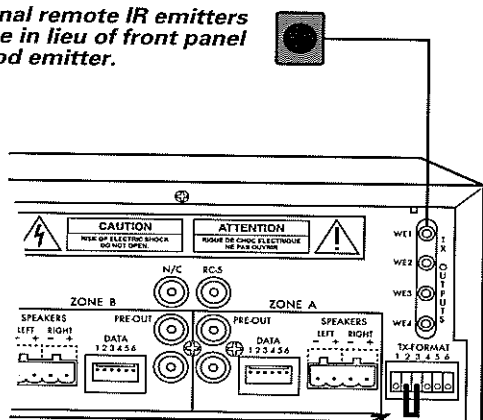
### 5.22 Front Panel IR Flood Emitter

All Super Controllers are shipped with the front panel IR "flood" emitter engaged. However, there may be applications (system installations on open shelves in *very* large, bright rooms, for example) where the IR "flood" emitter might interfere with proper source component operation or will not be particularly effective in communicating control pulses.

To disable the IR "flood" emitter, remove the jumper wire between screws 2 and 3 of the TX FORMAT terminal block located on the lower right hand side of the Super Controller's rear panel.

**NOTE: There is a very low intensity red LED mounted behind the IR flood window which flashes whenever it is transmitting IR codes. Use this LED to verify the emitter's operating status.**

**Optional remote IR emitters for use in lieu of front panel IR flood emitter.**



**Remove this jumper to disable front panel IR flood emitter.**

### 5.23 Rear Panel IR Emitters

The Super Controller rear panel has four paralleled 3.5 mm mini-jack sockets labeled 'INFRA RED'. These accept the QED Window Emitters (Order Code RL-WE).

Use these optional IR Window Emitters in situations where the Super Controller will be located some distance *away* from the source components or where the IR "flood" emitter may have difficulty transmitting reliable source control data.

## 5.3 AC Line Considerations

### 5.31 AC for the Super Controller

Plug the Super Controller into an unswitched AC source only.

### 5.32 AC for Source Components

The Super Controller has one rear panel switched AC convenience outlet. This may be used to supply power for components used with the Super Controller. The outlet carries a maximum load rating of 400 watts.

- a) Switched AC convenience outlet: When the Super Controller's front panel switch is Off, the switched AC outlet is also off. When the front panel switch is turned On (i.e., when the Super Controller first powers up to "Standby" mode), the switched outlet remains off until the Super Controller receives a zone activation command.

The switched AC outlet then remains on until the front panel power switch is turned Off or the Super Controller receives a "system shutdown" command from a remote zone. (See Section 6.28 for details.)

If you choose to power source components from the Super Controller's Switched AC outlet and you have components which normally power on in a standby mode, you may need to ACTIVATE the Super Controller's software based 'Power Toggle' command.

To do so, enter Set-up Mode from Zone A (see Section 5.13 for details) and press the PWR TOGGLE 'y' (for yes) key, and

then exit Set-up. This activates the Super Controller's software based "Power Toggle" command.

If source components are powered directly from an AC wall outlet, make sure the "Power Toggle" command is DEACTIVATED (the Super Controller's default condition) and that any source components featuring a "Standby" mode are "ON" before using the Super Controller.

### 5.33 AC Power Recommendations

- a) When using the switched mains AC outlet to supply source components it is recommended that a mains distribution unit be used with the IEC plug supplied.
- b) Ensure that the total power consumption of all the source components connected to the switched AC outlet does NOT exceed 400 Watts.

### 5.34 "Power Toggle" Command

The "Power Toggle" command, which operates the components referred to in Appendix A' Remote Commands Table', fully activates these units even though they usually go into a quiescent or Standby mode when first plugged into the wall, or when AC power becomes

available after they've been turned off. When the Super Controller sends the "Power Toggle" Command to a source unit, it makes it wake up, making it ready to accept further control commands. This feature is most common on Tuners and Video players.

The following steps will illustrate how the "Power Toggle" command works:

- Super Controller in "Standby" mode, source components OFF.  
Zone activation command received. Super Controller ON, Switched AC outlet switched ON, source components switched ON or into their "Standby" mode.
- Super Controller sends "Power Toggle" command to source components triggering them from "Standby" to fully ON.  
All source components ready for remote zone use.

## 5.4 Advanced Multi-Zone Systems

### 5.41 Eight & Twelve Zone Systems

The Super Controller is designed to supply independently controlled sound to four separate zones. In rare instances, a complex system may require even more flexibility. To satisfy these requirements, up to three Super Controllers can be cascaded to form a system with as many as 12 independent zones. Under these circumstances, all Super Controllers can still use only one set of source components.

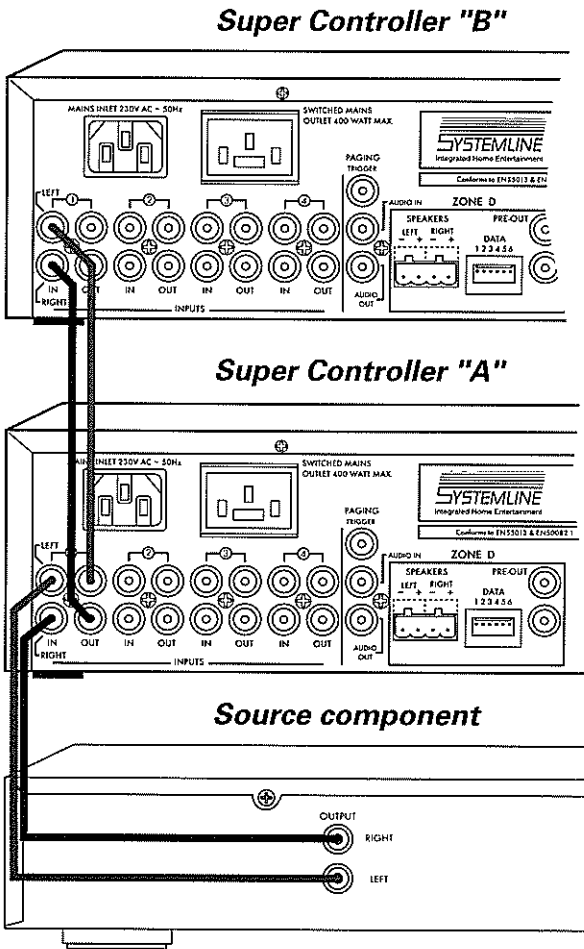
### 5.42 Large System Configuration

When system complexity calls for more than one Super Controller, ensure that no more than 3 Controllers are stacked on top of one another.

All hookup instructions will assume that Zones 1-4 will be handled by the bottom Super Controller (called "A"), Zones 5-8 from the Super Controller immediately above it ("B") and Zones 9-12 by the top unit ("C").

### 5.43 Source Connections

Connect all sources to the first Super Controller ("A") per the instructions in Section 4.11. Using shielded PHONO cables, connect Source 1's "loop through" outputs on Super Controller "A" to the corresponding Source 1 inputs on Super Controller "B". Follow this procedure for all inputs.



If a system requires a third Super Controller, simply repeat this procedure but, this time, connect source output on Super Controller "B" to the corresponding input on Super Controller "C".

**NOTE:** It is doubly (or trebly) important to observe proper channel continuity when connecting source components to more than one Super Controller. Once again, BE PATIENT AND BE CAREFUL.

### 5.44 IR Flood Emitter Connections

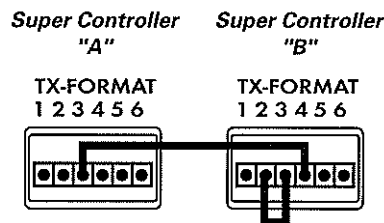
When 2 or 3 Super Controllers are used in the same system, we suggest that you connect them so that only one IR "flood" emitter works. This avoids potential interference that may lead to erratic operation

Note that this is a suggestion only and not a hard and fast rule. There may be some system layouts which benefit from the increased signal strength from all IR "flood" emitters. Experiment as needed. Use the following connection guide for multiple Super Controller systems:

a) For 5-8 zone systems (2 Super Controllers):

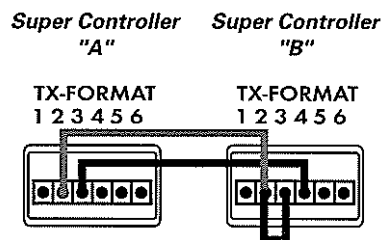
- Remove the jumper between terminals 2 and 3 of the TX FORMAT block on Super Controller "A" but leave the jumper in place on Super Controller "B".
- Connect terminal 3 of Super Controller A's TX FORMAT block to terminal 4 on Super Controller "B".

This completes the signal link to the IR "flood" emitter on Super Controller "B".



Use this jumper arrangement in a system with 2 Super Controllers to disable the flood IR emitters on the first controller and enable the emitter on the second.

To activate BOTH IR "flood" emitters, connect terminal 2 on Super Controller "B" to terminal 2 on Super Controller "A".

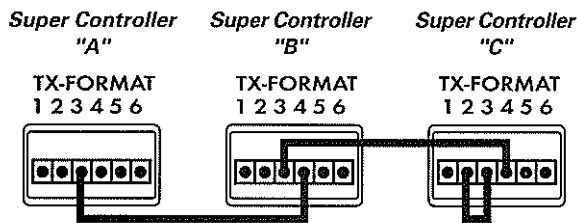


Use this jumper arrangement in a system with 2 Super Controllers to enable the flood IR emitters on both Super Controllers.

**NOTE: To disable both IR "flood" emitters, simply remove the jumper between terminals 2 and 3 of Super Controller "B". Also disconnect any link between terminal 2 of both "A" and "B".**

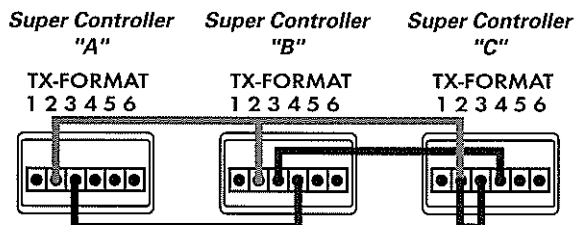
- b) For 9-12 zone systems (3 Super Controllers):
- Remove the jumpers between terminals 2 and 3 of the bottom two Super Controller's TX FORMAT blocks (Super Controller "A" and "B") but leave the jumper in place on Super Controller "C".
  - Connect terminal 3 of the Super Controller "A" TX FORMAT block to terminal 4 on Super Controller "B".
  - Connect terminal 3 of the Super Controller "B" TX FORMAT block to terminal 4 on Super Controller "C".

This completes the signal link to the IR "flood" emitter on Super Controller "C".



**Use this jumper arrangement in a system with 3 Super Controllers to disable the flood IR emitters on the first two Controllers and enable the emitter on the third.**

- To activate ALL IR "flood" emitters, connect terminal 2 on Super Controller "C" to terminal 2 on Super Controller "B". Then connect terminal 2 on Super Controller "B" to terminal 2 on Super Controller "A".



**Use this jumper arrangement in a system with 3 Super Controllers to activate the flood IR emitters on all three Controllers.**

**NOTE: To disable all IR "flood" emitters, simply remove the jumper between terminals 2 and 3 of Super Controller "C". Also disconnect any link between terminal 2 of "A" and "B" and "C".**

### 5.45 IR Repeater Connections

Use the following connection systems guide for multiple Super Controller systems:

- a) For 5-8 zone systems (2 Super Controllers): Make sure to connect all IR repeaters to only Super Controller "B". Make all RC-5 connections, if needed, to only Super Controller "B".
- b) For 9-12 zone systems (3 Super Controllers): Make sure to connect all IR repeaters to only Super Controller "C". Make all RC-5 connections, if needed, to only Super Controller "C".

### 5.46 AC Connections

In systems using multiple Super Controllers it is important to make one unit the Prime Controller. This controller will supply the switched AC supply to the source components. Further controllers should be plugged directly into a switched mains source, they should NOT be fed from the switched AC mains supply of the prime controller.

We suggest that the "last" Super Controller in the chain, either 'B' or 'C', be designated as the controller for prime zones, as this Super Controller will have all IR repeaters and RC-5 control cable (if needed) plugged into it.

Ideally, when using multiple controllers, a mains distribution unit should be sourced which uses the switched AC outlet of the prime controller purely as a mains trigger. With a suitably rated unit it is then possible to feed all source components and further controllers under the control of the prime Super Controller. If the system is configured in this way, system shutdown and power-up are then issued ONLY from zones connected to the prime Controller.

**SUGGESTION: Select "Tuner" when initially powering the system. This will give you a quick and relatively foolproof status check. If you want another source, simply choose it after you hear output from the tuner.**

## 5.47 "Power Toggle" Set-up

In a system that uses more than one Super Controller, it is important that the "Power Toggle" is DISENGAGED' in all but the prime Super Controller. Even though the default "Power Toggle" setting is OFF, verify that this has not changed by temporarily connecting an IMS to the Zone A data terminal of secondary controllers. Enter the Set-up mode as outlined in Section 5.32 and set the "Power Toggle" to 'n' for NO.

**This is a critical step in a system using multiple Super Controllers. If the "Power Toggle" is not deactivated in the non-prime Super Controller(s), source components will not turn on and off with the controller/amplifiers - in fact, source components may actually turn off when Super Controllers turn on.**

### Use of "Power Toggle"

As a general rule, the "Power Toggle" should be de-activated by selecting 'n' at Set-up (the default mode). Only when using a Pioneer Laser Disc Player (powered by the switched AC outlet) should it be activated.

## 5.48 Note on "Engaged" Indicator

The "Engaged" indicator on a remote zone's IMS Display/Eye(s) will indicate other same-source users only in zones connected to that particular Super Controller.

For example, in an 8-zone system using two Super Controllers, a CD listener in Zone 7 (connected to the second Super Controller) would have no indication that another user in Zone 2 (connected to the first Super Controller) was listening to the same source. If a third listener in Zone 4 then selected CD, only the listeners in Zones 2 and 4 (both connected to the same Super Controller) would know that someone else was sharing the same source.

## 5.5 Paging Operation

When the Paging trigger is activated any zone that is in standby will be turned On automatically by the Controller. The Display will continue to show the Stby symbol ' \_ '.

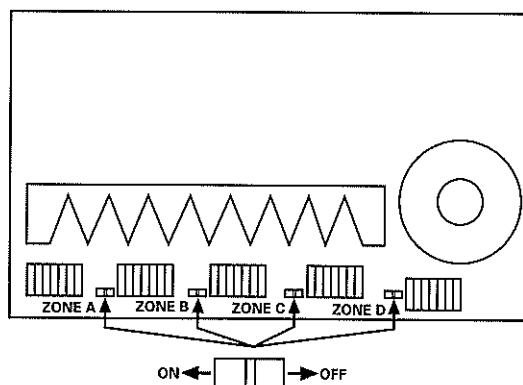
If a Zone is listening to a source and the Paging trigger is activated the controller will automatically switch to the Paging Input. The Display will continue to show the input source selected.

Any audio signal present at the paging input will then be relayed over the speakers.

As soon as the Paging Trigger input is Open Circuit any Zone which was OFF will return to Standby, any Zone which was ON will return to the previously selected source.

## 5.51 Paging Inhibit

The installer can select which Zones will receive an announcement when the paging is activated. Each Zone has an internal micro switch which can be set ON/OFF when the top cover is removed.



NOTE: i) If a Zone is in Standby, (or is listening to input 1,2 or 3) and its paging inhibit switch is set to OFF, the Zone will remain in its present status when the paging is activated.

NOTE: ii) If a Zone is listening to Input 4 with its paging switch set to OFF, the paging input will be heard when activated.

## 5.6 Surround Sound

Each Zone has the provision for a plug in Surround Sound Processor Card. Further information was not available at the time of publication, please enquire for more details.

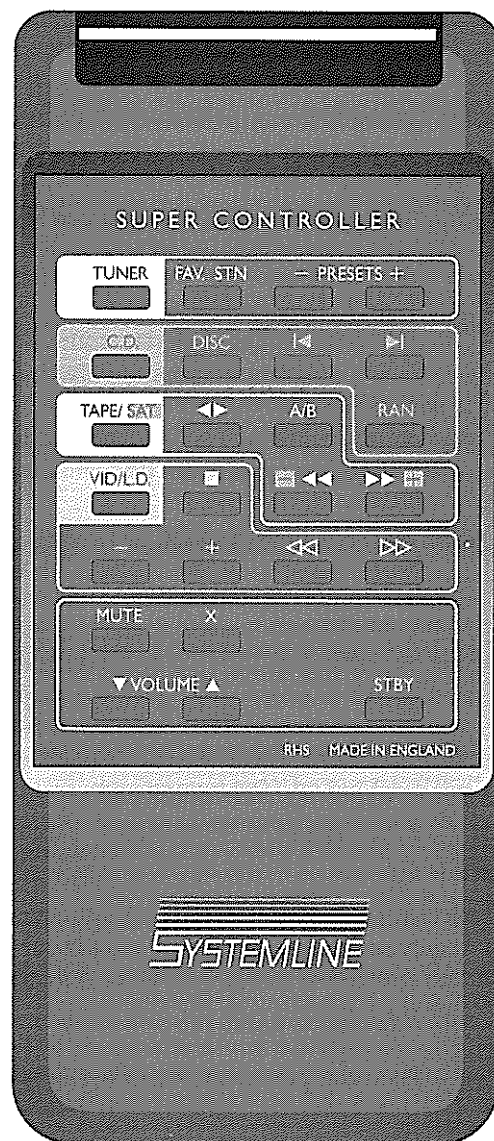
## 6.1 Preliminary Observations

Once properly installed and set up, the Super Controller Multi-Room System is exceptionally easy to operate.

As detailed in Section 5.31, the Super Controller should ALWAYS be plugged into an uninterruptable AC source. This ensures that essential Super Controller system benefits such as remote controlled zone activation and source selection are always available.

Zone control devices (the KMS keypad and IMS Display/Eye) are powered from the data cables and are always active as long as the Super Controller is connected to AC and switched on.

## 6.2 RHS Hand-held Remote Control



The RHS controller provides easy and convenient system operation from any zone equipped with a IMS Display/Eye. You will find that the RHS/IMS's operating range is longer and the angle of acceptance is wider than with many other hand held controllers. This increased operating convenience is a direct result of a more powerful transmitter in the remote and more sensitive receiving circuitry in the Display/Eyes. Enjoy the difference.

## 6.21 Input Selector Buttons

Depending on system status, pressing any of these buttons will do one of the following:

- a) If the entire system is "Off" (i.e., the Super Controller is in "Standby" mode and all source components are either Off or in "Standby" ), pressing any input selector button will activate the entire system (including source components) for distribution as requested.
- b) If only the requesting zone is in "Standby" (and the rest of the system, including sources, is active), selecting an input will enable that zone's microprocessor-controlled switching circuitry and direct that source's output to the requesting zone. If the requested source is not already in use by another zone, selecting the source will also engage Play mode.
- c) If the requesting zone is already playing a different source, pushing another input selector button will simply choose the new source.
- d) Input selector buttons for CD, TAPE/SAT and VID/L.D. double as "Play" command buttons for their respective sources. This is important when a source is in "Stop" mode: Simply press the proper input selector again to resume play.

## 6.22 Tuner Control Buttons

- a) **FAV. STN (Favourite Station):** This will select the first station (Preset No.1) programmed into the tuner's memory.
- b) **◀ - PRESETS :** This selects the next PREPROGRAMMED station LOWER in frequency than the one playing.
- c) **PRESETS + ▶ :** This selects the next PREPROGRAMMED station HIGHER in frequency than the one playing.

**NOTE:: BOTH ◀ - PRESETS and PRESETS + ▶ select only pre-programmed stations; This is not a station search..**

Ensure that the Tuner aerial is connected and stations programmed into memory before checking this handset feature.

## 6.23 CD Control Buttons

- a) **RANDOM:** This instructs the single CD player to play tracks in a random order. On Multi Disc CD Players random tracks are selected from the disc library.
- b) **DISC** (functional only with multi-play CD players): This advances the CD player to the next available disc.
- c) **▶| :** This advances the CD player to the next track on the disc being played.
- d) **◀| :** This button reverts to the beginning of the track being played. Two quick pushes accesses the previous track.

## 6.24 Tape or Satellite Control Buttons

- a) **◀▶ (Auto reverse):** This reverses the direction of play.
- b) **A/B (A or B tape deck):** For twin tape decks only, this switches from one deck to the other.
- c) **◀◀ (Rewind):** This rewinds the tape. Press the 'Tape' button to put the deck back into PLAY mode.  
FOR SATELLITE RECEIVER, this function decrements the channel number.
- d) **▶▶ (Fast forward):** Same as b) above but in the opposite direction.  
FOR SATELLITE RECEIVER, this function increments to higher channel number.

## 6.25 Video or Laser Disc Control Buttons

### Video Functions

- a) **■ (Stop):** This button stops the Video.
- b) **- (Channel minus):** Decrements to lower station number utilising the video's built-in T.V. Tuner.
- c) **+ (Channel plus):** Increments to a higher station number.
- d) **◀◀ (Fast reverse/Scan):** This rewinds the video tape.
- e) **▶▶ (Fast forward/Scan):** As above except opposite direction.

## Laser Disc Functions

- a) **■ (Stop):** This button stops the Laser Disc.
- b) **– (Last track/chapter):** If a track/chapter is being played, this button backs the Laser Disc player to the beginning of that track and continues playing. Two quick pushes backs the player to the beginning of the PREVIOUS track or chapter.
- c) **+ (Next track/chapter):** If a track/chapter is being played, this button advances the Laser Disc player to the beginning of the next track/chapter and continues playing. Two quick pushes advances play two tracks/chapters and so on.

**NOTE: If a Satellite receiver is chosen in place of a tape deck, control is only available using the RHS handset- not via the Keypad. It is however possible to select the Satellite Zone input just by pressing the Tape button.**

### 6.26 MUTE

This temporarily reduces the zone volume to a very low level for telephone conversations, etc. Press Mute again to restore volume to original level. You can also press Volume Up, Volume Down or any Input button to restore original level.


### 6.27 VOLUME UP, VOLUME DOWN

Simply press the desired button to change the volume level in the Zone.

### 6.28 STBY

This button has two functions:

- a) A brief push will put the Zone from which the command originated into Standby status. All other zones will remain unaffected. Source components will remain on.
- b) A continuous push of more than 3.5 seconds will have one of the following effects depending on the system configuration:

NOTE: The Standby bar  will flash twice to acknowledge this command.

-In a system using only one Super Controller, a continuous push of more than 3.5 seconds will power down the entire system including source components.

-In a system using multiple Super Controllers, a continuous push of more than 3.5 seconds FROM A PRIME ZONE (i.e., a zone directly connected to the prime Super Controller) will power down the entire system. The prime Super Controller will go into Standby mode. All source components and supplementary Super Controller(s) connected to a mains distribution unit will be powered down completely

In a system using multiple Super Controllers, a continuous push of more than 3.5 seconds FROM A NON PRIME ZONE (i.e., a zone directly connected to other Super Controllers) will put the Super Controller connected to that zone into Standby mode. All zones connected to that Super Controller will shutdown until an input selector from one of those zones is pushed. Other Super Controllers will be unaffected.

However, a continuous (> 3.5 seconds) push of the STBY button from any zone will generate a STOP COMMAND TO ALL SOURCE COMPONENTS EXCEPT THE TUNER.

### 6.29 "X"

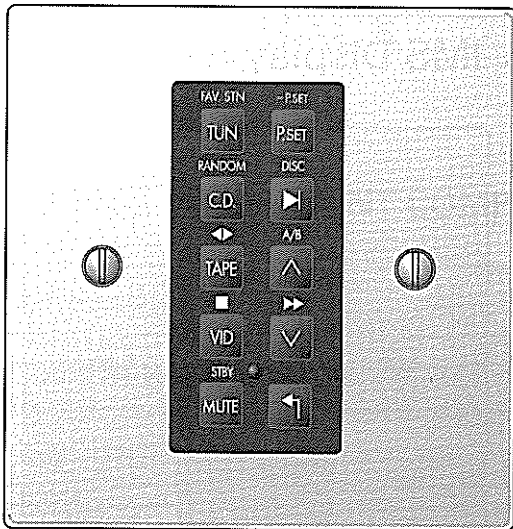
This is reserved for future use and inoperative at the present time.

## 6.3 KMS Keypad

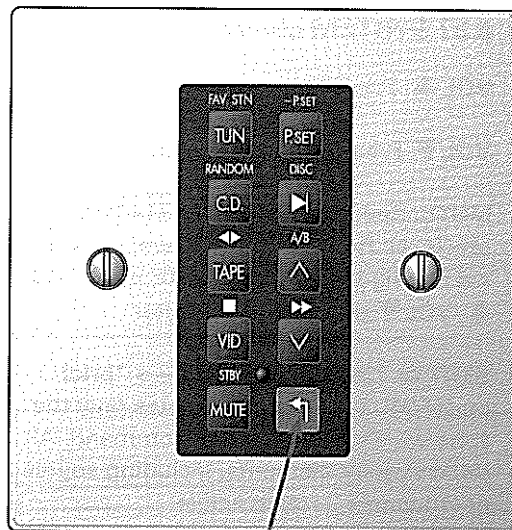
The KMS keypad offers easy access to most Super Controller system functions. It includes 10 individual keys and an LED indicator to aid in sending the proper commands to the Super Controller. The major functional difference between the KMS keypad and RHS hand held remote controller is that the wall-mounted keypad has only ten keys.

### 6.31 "Obvious" key functions

Most keys have a dual purpose. Used alone, they control dedicated functions marked on the key surfaces.



primary functions shown on keys



press SHIFT key to access "hidden" functions

### 6.32 "Hidden" key functions

Used in conjunction with the SHIFT key, the same keys also control different ("hidden") functions as indicated by the less obtrusive IDs on the protective plate surrounding the keys.

Access these "hidden" commands by first pressing SHIFT and then an appropriate key. When you press SHIFT, the red LED at the bottom centre of the keypad will glow to indicate that you are asking for a "hidden" command. The LED will go out as soon as you press another key.

### 6.33 TUNER commands

- a) TUN: This chooses the tuner as a zone input. (We recommend this choice as the ideal way to activate the Super Controller and source components after a powerdown command.)
- b) P SET: Push this to advance to the next PRE-PROGRAMMED station. (For example, if you are listening to pre-set 5, this key will select pre-set 6.)
- c) FAV STN (SHIFT-> TUN): This key sequence will recall the broadcast frequency stored in the tuner's first pre-programmed memory slot.
- d) P. SET (SHIFT-> P. SET+): This sequence will decrement the pre-set number. (For example, if you are listening to pre-set 5, this key sequence will select pre-set 4.)

### 6.34 CD commands

- a) CD: This chooses the CD player as a zone input and activates the CD player's "play" command if needed.
- b) ►|: This advances the CD player to the CD's next track.
- c) RANDOM (SHIFT → CD): This activates the CD player's "random" playback mode.
- d) DISC (SHIFT → ►|): This advances a multi-disc CD player to the next available disc.

### 6.35 TAPE commands

- a) TAPE: This chooses the tape deck as a zone input and activates the deck's "play" command if needed.
- b) ◀◀ (SHIFT → TAPE): This activates REVERSE PLAY mode. Stop and begin play at any point by pressing TAPE.
- c) ▶▶ (SHIFT → VOL+): This activates DECK-A DECK-B toggle mode. Stop and begin play at any point by pressing TAPE.

### 6.36 Vid or L.D. Commands

- a) VID: This chooses the Video or Laser Disc player as a zone input and activates the player's "play" command if needed.
- b) ■: This stops the Video or Laser Disc player.
- c) ▶▶: This fast forwards the video tape or puts the Laser Disc player into scan forward mode.

## 6.37 SYSTEM commands

- a) **VOL ▲**: Press to increase volume.
- b) **VOL ▼**: Press to decrease volume.
- c) **MUTE**: Reduces system volume to very low level. Restore volume level to original setting by pressing MUTE again, VOL ▲, VOL ▼ or any input selector.
- d) **STBY or "Standby" (SHIFT → "brief push" MUTE)**: This deactivates only the zone which generated the command. All other system elements, including source components, remain active.

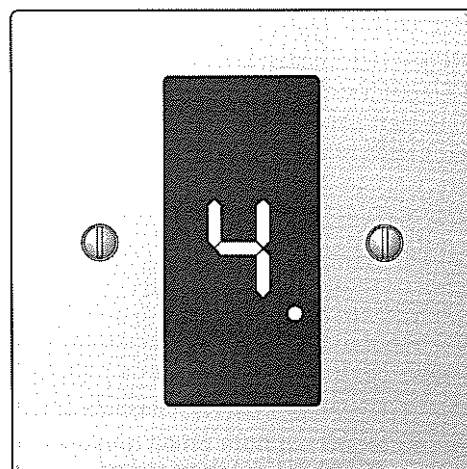
**NOTE: Activate "Zone Standby" by pressing SHIFT followed by a brief push on MUTE.**

- e) **SYSTEM SHUT-DOWN (SHIFT-> MUTE for more than 3.5 seconds)**: This will shut down the entire system including source components.

**NOTE: In a system using multiple Super Controllers, this command will deactivate the entire system only if the command originates from a zone connected to the prime Super Controller. (See Section 5.46 for details.) Otherwise, this command will put ONLY the Super Controller connected to that zone into Standby mode and will deactivate other zones connected to the same Super Controller.**

However, note that the SYSTEM SHUTDOWN command includes an embedded STOP command for all system source components except the tuner. This means that these sources will stop, even if they are being used by zones controlled by another Super Controller.

## 6.4 IMS Display/Eye



### 6.41 Overview

The IMS Display/Eye receives IR signals from the RHS hand held controller and other IR devices. In addition, it provides feedback on system status through an LED display matrix mounted behind the cover plate.

The LED display supplies the following data:  
System status: The Standby bar "-" indicates that the Zone is in Standby Mode. To reactivate the Zone simply press the input of the source you wish to hear.

Tuner	Input 1
CD player	Input 2
Tape Deck/Sat. receiver	Input 3
Video/Laser disc	→ Input 4

If there is no display symbol this indicates that the Super Controller is OFF and will need to be turned on at the main control unit before use.

When initiating a system power down command (to turn all source components OFF (via the switched AC outlet) the Standby bar will flash twice.

## 7.0 Conclusion

We hope this manual has been of assistance in planning and installing your multi-room sound distribution system. Although we've gone to great lengths to make this as complete as possible, we're sure we haven't covered every aspect of every possible system installation. Please feel free to call our Technical Service department if you have any questions. Thank you very much.

# E FAX BACK

FAX TO: (01276) 452211

## SOURCE COMPONENT COMPATIBILITY PROBLEM

Installer/Dealer Name:
Your Fax Number:
Your Telephone Number:
Controller Serial Number:
1st Component Type. CD etc.
Brand. SONY, Denon etc.
Model Number:
Details of problem....
2nd Component Type:
Brand:
Model Number:
Details of problem....
3rd Component Type:
Brand:
Model Number:
Details of problem....
Any other comments

Appendix • A

SPECIFIC MODELS USED IN COMPILING THE ABOVE TABLE TOGETHER WITH OPERATIONAL NOTES:-

COMPONENT	MODEL No.	SPECIAL OPERATIONAL NOTES:
SONY CD	CDP-C345	
SONY TAPE	TC-WR445	Operates only deck A of twin deck machines. No AB or REV-P.
SONY TUNER	ST-S311	Favourite Station selects 1st station in group A/B/C. Suggestion; program each group with same stations.
SONY VIDEO	SLV-225	
PIONEER CD	PD-F100	Programmed for use with 100 Disc Player.
PIONEER TAPE	N/A	Operates only deck A of twin deck machines. No A/B or REV-P.
PIONEER TUNER	N/A	No F.S. Function.
PIONEER LASER	CLD 1950	Activate 'Power Toggle' If Laser Player is used with controllers switched AC outlet.
DENON CD	DCM-340	
DENON TAPE	DRW-580	No REV-P function. To start other tape playing press A/B and then Tape.
DENON TUNER	TU-215RD	No F.S. Function. The Power Toggle feature has been excluded for this brand as our sample has a random power up status.
YAMAHA CD	CDC-645	
YAMAHA TAPE	KXW-282	To start other tape playing press A/B and then Tape. REV-P applies to only tape deck A of twin tape machines.
YAMAHA TUNER	TX-480L	Suggestion: Program preset groups A/B/C/D/E with same preset frequencies.
RC-5 CD MARANTZ	CC-52	
RC5 TAPE MARANTZ	SD-535	
RC5 TUNER MARANTZ	ST-63	
RC5 VIDEO PHILIPS	VR-747	C+/C- control sharpness when in play mode. Video pauses on 1st Stop button press- Stops on 2nd.
PANASONIC VIDEO	NVSD-44	Video leaves Standby mode when Play command is sent.
PACE SATELITE	MSS-1000	The Power Toggle feature is not included for this unit as it leaves Standby mode when C+ or C- command is sent.

IMPORTANT: SOME VIDEO PLAYERS MUST BE IN STANDBY FOR TIMER RECORDINGS. IT IS THEREFORE IMPORTANT TO ENSURE THAT THE VIDEO IS IN STANDBY AFTER USE.

## REMOTE COMMANDS TABLE

COMMAND	PLAY	STOP	FFWD	FREW	PS/C+	PS/C-	AB	REV P	TS +	TS-	DISC	F.S.	P-TOG	RAND
SONY CD	YES	YES							YES	YES	YES			YES
SONY TAPE	YES	YES	YES	YES			NO	NO						
SONY TUNER					YES	YES								
SONY VIDEO	YES	YES	YES	YES	YES	YES							NO	
PIONEER CD	YES	YES							YES	YES	YES			YES
PIONEER TAPE	YES	YES	YES	YES			NO	NO						
PIONEER TUNER					YES	YES								
PIONEER LASER	YES	YES	YES	YES					YES	YES			YES	
DENON CD	YES	YES							YES	YES	YES			YES
DENON TAPE	YES	YES	YES	YES			YES	NO						
DENON TUNER					YES	YES							NO	
YAMAHA CD	YES	YES							YES	YES	YES			
YAMAHA TAPE	YES	YES	YES	YES			YES	YES					NO	
YAMAHA TUNER					YES	YES						YES		
RC-5 CD	YES	YES							YES	YES	YES		NO	YES
RC5 TAPE	YES	YES	YES	YES			YES	YES						
RC5 TUNER					YES	YES						YES		
RC5 VIDEO	YES	YES	YES	YES	YES	YES							NO	
PANASONIC VIDEO	YES	YES	YES	YES	YES	YES							NO	
PACE SATELITE					YES	YES						NO	NO	
COMMAND	PLAY	STOP	FFWD	FREW	PS/C+	PS/C-		REV P	TS +	TS-	DISC	F.S.	P-TOG	RAND



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