Background Music Volume Control
Kit # 21639701

This volume control kit allows different volume levels for customer made selections and Autoplay. The STEREO options allow you to play customer selections at one volume and play Autoplay music at another volume. The speaker switching feature allows you to determine which rooms will receive customer selected music and which rooms will receive Autoplay music.

The MONO options allow you to control the volume in each of two rooms separately for both customer selections and for Autoplay music. The speaker switching feature allows you to determine which rooms will receive customer selected music and which rooms will receive Autoplay music.

✓ NOTE:

❶ This kit does not provide instructions on how to play external BGM sources through the phonograph's speaker system (order the Amplifier Accessory Board, Part Number 26694703, if you wish to play external music through the phonograph's speakers).

❷ Unless you are instructed otherwise, the instructions in this kit supercede any instructions that are supplied with other kits that you may need to install the options you have selected (As an example: If you have purchased a remote volume control, do not use the remote volume control instructions . . . Follow these instructions).

Components Purchased Separately

Depending on the option that you choose, you may need to purchase one or more remote volume controls and corresponding cables. Refer to the following chart to verify that you have the correct remote volume control(s) and cable(s):

Remote Control Type	Stereo Options	Mono Options	Part Number
(Single) Remote Volume Control	B, C,	A, B, E[1]	30632201
Dual Remote Volume Control	D,	C, D, E[1], F[2]	30632209
3-Conductor Cable	B, C	B, E[1]	20819907
4-Conductor Cable	D	C, D, E[1]	20819908
Integrated Circuit (PROM)[3]	All	All	70039903

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[1] Requires one (single) Remote Volume Control and one Dual Remote Volume Control

[2] Requires two Dual Remote Volume Controls

[3] PROM Version 1.3 or higher is required by this kit. If multiple Autoplay ON/OFF times or Cancel Autoplay feature is required, Version 2.0 or greater is required. For descriptions of the Autoplay features and how to select these options, see Part III.

Rowe Music
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Table of Contents

Figure 1. Kit Components

Parts List

Ref.	Description	Part No.	Qty.
	Instruction Sheet	21639801	1
1	BGM Volume Control Circuit Board	40797001	1
2	Power Harness	30897401	2
3	Volume Control Harness	30897301	1
4	#8 X 32 3/4 Hex. WRHS (Type 17) (Not Shown)	86663612	3

STEP-BY-STEP INSTRUCTIONS

These instructions are divided into four parts:

• *Part I* contains the circuit board installation procedure.

• *Part II* provides the step-by-step process of installing various volume control combinations.

• *Part III* provides step-by-step instructions for customizing Autoplay to your needs.

• *Part IV* furnishes complete step-by-step instructions to install the speaker switching options (these options can be used in addition to the volume control options).

• *Part V* Contains schematic diagrams that will be helpful if you have difficulty installing this kit.

Regardless of the installation option you choose, you must do *Part I* (the circuit board installation) or the remote volume control board will not work; then do either (or both) *Part II* and *Part III.*

PART I: CIRCUIT BOARD INSTALLATION

Do steps 1, 2 and 3 regardless of the speaker and volume control option that you choose.

1. Make sure that the central control computer PROM (*figure 2, reference A*) is at Level 1.3 or greater. If your PROM is not Level 1.3 or higher, you must order a new PROM (Part Number 70039902) and install it according to the PROM installation kit's instructions before you use this kit.

2. Mount the BGM circuit board as shown in *figure 2, reference B.*

3. Turn the phonograph POWER switch off and unplug the phonograph.

4. Connect the POWER HARNESS to P4 on the central control computer and to P1 on the BGM circuit board as shown in *figure 2, reference C.*

5. Insert the loose *White* wire on P1 of the volume control circuit board into *P15, Pin 11* on the central control computer (NOTE: Both Pin 10 and Pin 11 of P15 are open slots. Make sure that you use Pin 11).
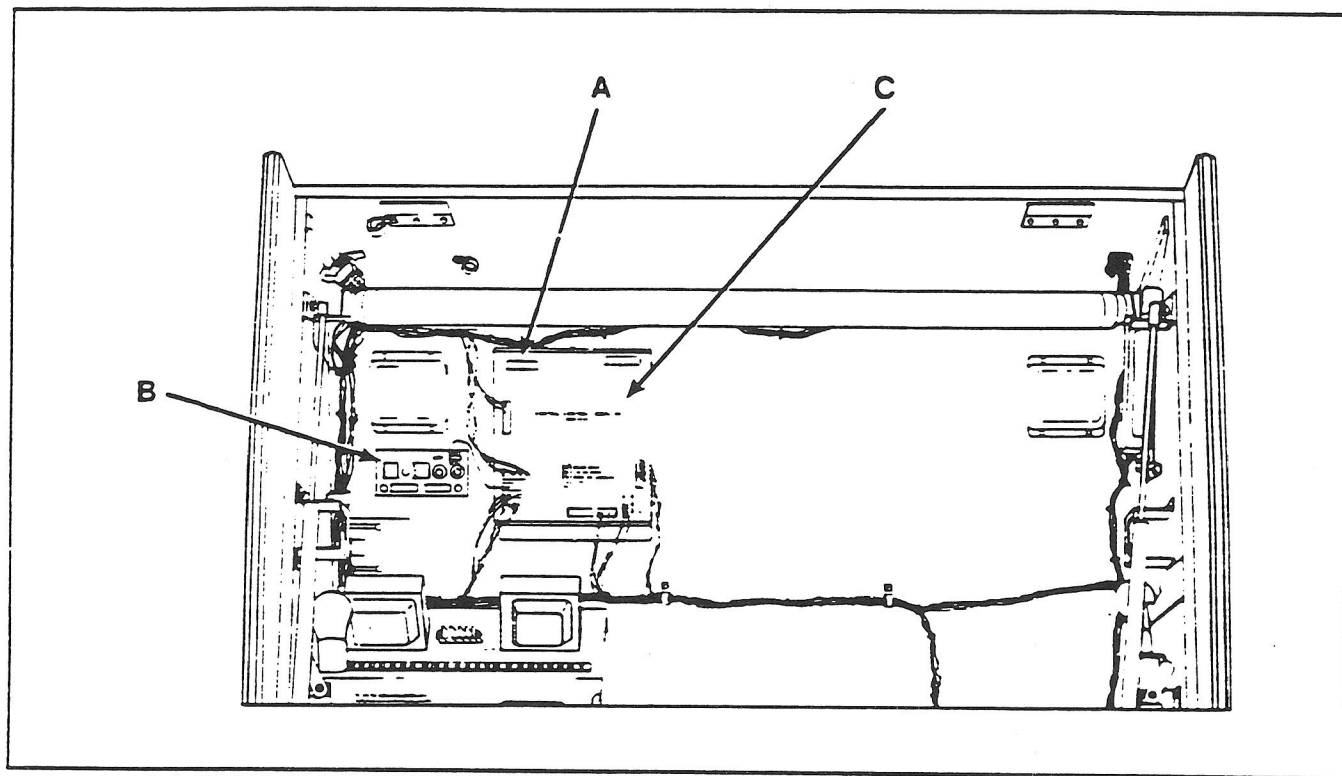

Figure 2. Mounting The Circuit Board

Now, select the volume control option that you wish to use (you can choose your speaker/amplifier option later). If you are only installing speaker or amplifier switching, go directly to *Part III now.*

PART II: VOLUME CONTROL OPTIONS

Read through this section and find the volume control instructions that provide the options that you want. Read through the instructions and make sure that you have the necessary cable and volume controls to complete the installation.

Since remote volume controls can be installed in a variety of types of locations, we refer to volume control installations in different areas simply as Room #1 or Room #2. R1 on the volume control board controls Room #1 and R2 controls Room #2.

If you do not find a option that matches your needs, you can use a option that is similar to your needs and modify the option accordingly, or call Rowe Customer Service at (800) 669-7693 for assistance.

STEREO OPTION A

Normal Play: Phonograph volume control sets the volume in all rooms
Autoplay: Control R1 on volume control circuit board sets the volume in all rooms

STEREO OPTION B

Normal Play: Phonograph volume control sets the volume in all rooms
Autoplay: Remote volume control sets the volume in all rooms

STEREO OPTION C

Normal Play: Remote volume control sets the volume in all rooms
Autoplay: Control R1 on the volume control circuit board sets the volume in all rooms

STEREO OPTION D

Normal Play: One knob of a dual remote volume control sets the volume in all rooms
Autoplay: The other knob of the dual remote volume control sets the volume in all rooms

MONO OPTION A

Normal Play: Phonograph volume control sets the volume in two rooms to the same level
Autoplay: Controls R1 and R2 set the volume in rooms #1 and #2

MONO OPTION B

Normal Play: Room #1 is set by the phonograph volume control and Room #2 is set by a remote volume control
Autoplay: Controls R1 and R2 on the volume control board set the volume in Rooms #1 and #2

MONO OPTION C

Normal Play: Phonograph volume control sets the volume in all rooms
Autoplay: A dual remote volume control sets the volume in Rooms #1 and #2

MONO OPTION D

Normal Play: Room #1 and Room #2 by a dual remote volume control
Autoplay: Controls R1 and R2 on the volume control circuit board set the volume in Rooms #1 and #2

MONO OPTION E

Normal Play: Room #1 by the phonograph volume control and Room #2 by a remote volume control
Autoplay: A dual remote volume control sets the volume in Rooms #1 and #2

MONO OPTION F

Normal Play: A dual remote volume control sets the volume in Rooms #1 and #2
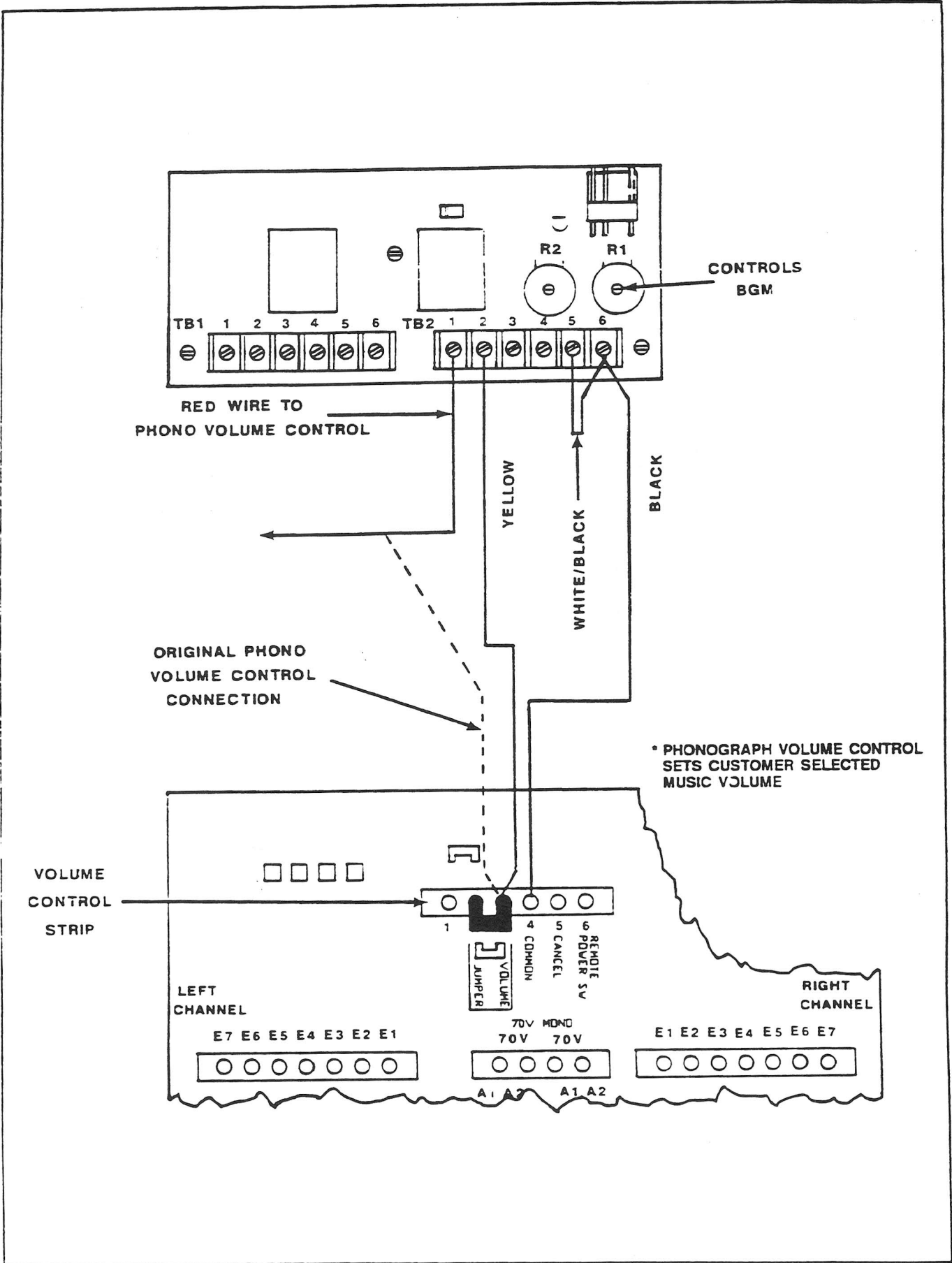**Autoplay:** A second dual remote volume control sets the volume in Rooms #1 and #2

STEREO OPTION A

Normal Play: Phonograph volume control sets the volume in all rooms
Autoplay: Control R1 on volume control circuit board sets the volume in all rooms

1. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 2, or 3* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and make sure that the VOLUME JUMPER is on *Terminals 2 and 3* as shown.

2. Connect one end of the *Yellow* wire in the harness to *Terminal 3* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to *TB-2, Terminal 2*.

3. Connect the *Red* wire from the phonograph volume control to *TB-2, Terminal 1*.

4. Connect the *Black* wire between the VOLUME CONTROL STRIP, *Terminal 4* and *TB-2, 6* and do not tighten the screw on *Terminal 6*.

5. Connect one end the *White/Black* wire to *TB-2, Terminal 6* and tighten the screw. Connect the other end to *TB-2, Terminal 5*.

6. Turn R1 fully counter-clockwise[1]. Plug in the phonograph, turn it on, and make a selection.

7. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

8. Turn R1 clockwise until the background music is at the desired level and then plug P15 back into the central control computer.

9. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III*.

10. Review *Part IV* and make any speaker connections that you wish to make.

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[1] R1 can be set to less than fully clockwise to limit the maximum volume of Autoplay selections

CONTROLS BGM

R2   R1

TB1 1 2 3 4 5 6   TB2 1 2 3 4 5 6

RED WIRE TO
PHONO VOLUME CONTROL

YELLOW

WHITE/BLACK

BLACK

ORIGINAL PHONO
VOLUME CONTROL
CONNECTION

• PHONOGRAPH VOLUME CONTROL
SETS CUSTOMER SELECTED
MUSIC VOLUME

VOLUME
CONTROL
STRIP

1   4   5   6
                 COMMON CANCEL REMOTE POWER 5V

VOLUME JUMPER

LEFT
CHANNEL

E7 E6 E5 E4 E3 E2 E1

70V MONO
70V   70V

A1 A2   A1 A2

RIGHT
CHANNEL

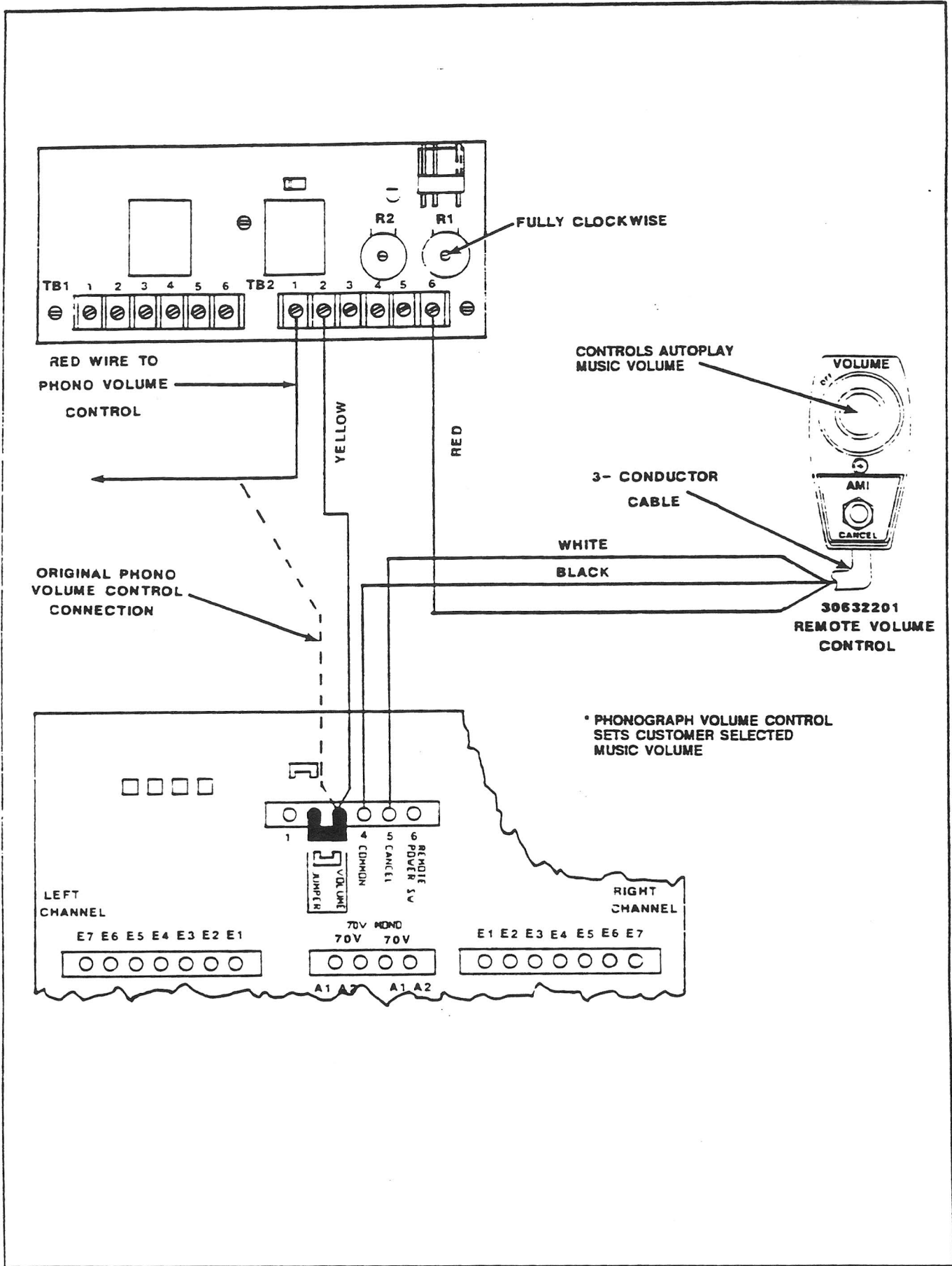E1 E2 E3 E4 E5 E6 E7

Stereo Option A

STEREO OPTION B

Normal Play: Phonograph volume control sets the volume in all rooms
Autoplay: Remote volume control sets the volume in all rooms

1. Install the remote volume control cable between the phonograph and the remote location and connect the REMOTE VOLUME CONTROL to a 3-conductor cable. If the colors in your 3-wire cable are not *Black, White,* and *Red,* make a note of the wire colors that connect to the *Black, White,* and *Red* terminals on the REMOTE VOLUME CONTROL.

2. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 2,* or *3* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and make sure that the VOLUME JUMPER is on *Terminals 2 and 3* as shown.

3. Connect one end of the *Yellow* wire in the harness to *Terminal 3* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to *TB-2, Terminal 2.*

4. Connect the *Red* wire from the phonograph volume control to *TB-2, Terminal 1.*

5. Connect the *Black* wire from the REMOTE VOLUME CONTROL to the VOLUME CONTROL STRIP COMMON screw.

6. Connect the *White* wire from the REMOTE VOLUME CONTROL to VOLUME CONTROL STRIP CANCEL.

7. Connect the *Red* wire from the REMOTE VOLUME CONTROL to *TB-2, Terminal 6.*

8. Turn R1 fully clockwise[1].

9. Turn the REMOTE VOLUME CONTROL fully counter-clockwise. Plug in the phonograph, turn it on, and make a selection.

10. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

11. Turn the REMOTE VOLUME CONTROL clockwise until the music is at the desired level and then plug P15 back into the central control computer.

12. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III.*

13. Review *Part IV* and make any speaker connections that you wish to make.

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[1]R1 can be set to less than fully clockwise to limit the maximum volume of Autoplay selections

R2 R1

FULLY CLOCKWISE

TB1 1 2 3 4 5 6 TB2 1 2 3 4 5 6

RED WIRE TO
PHONO VOLUME
CONTROL

YELLOW

RED

CONTROLS AUTOPLAY
MUSIC VOLUME

VOLUME

AMI

CANCEL

3- CONDUCTOR
CABLE

WHITE

BLACK

ORIGINAL PHONO
VOLUME CONTROL
CONNECTION

30632201
REMOTE VOLUME
CONTROL

* PHONOGRAPH VOLUME CONTROL
SETS CUSTOMER SELECTED
MUSIC VOLUME

1 4 5 6
COMMON CANCEL REMOTE
POWER 5V

VOLUME
JUMPER

LEFT
CHANNEL

E7 E6 E5 E4 E3 E2 E1

70V MONO
70V 70V
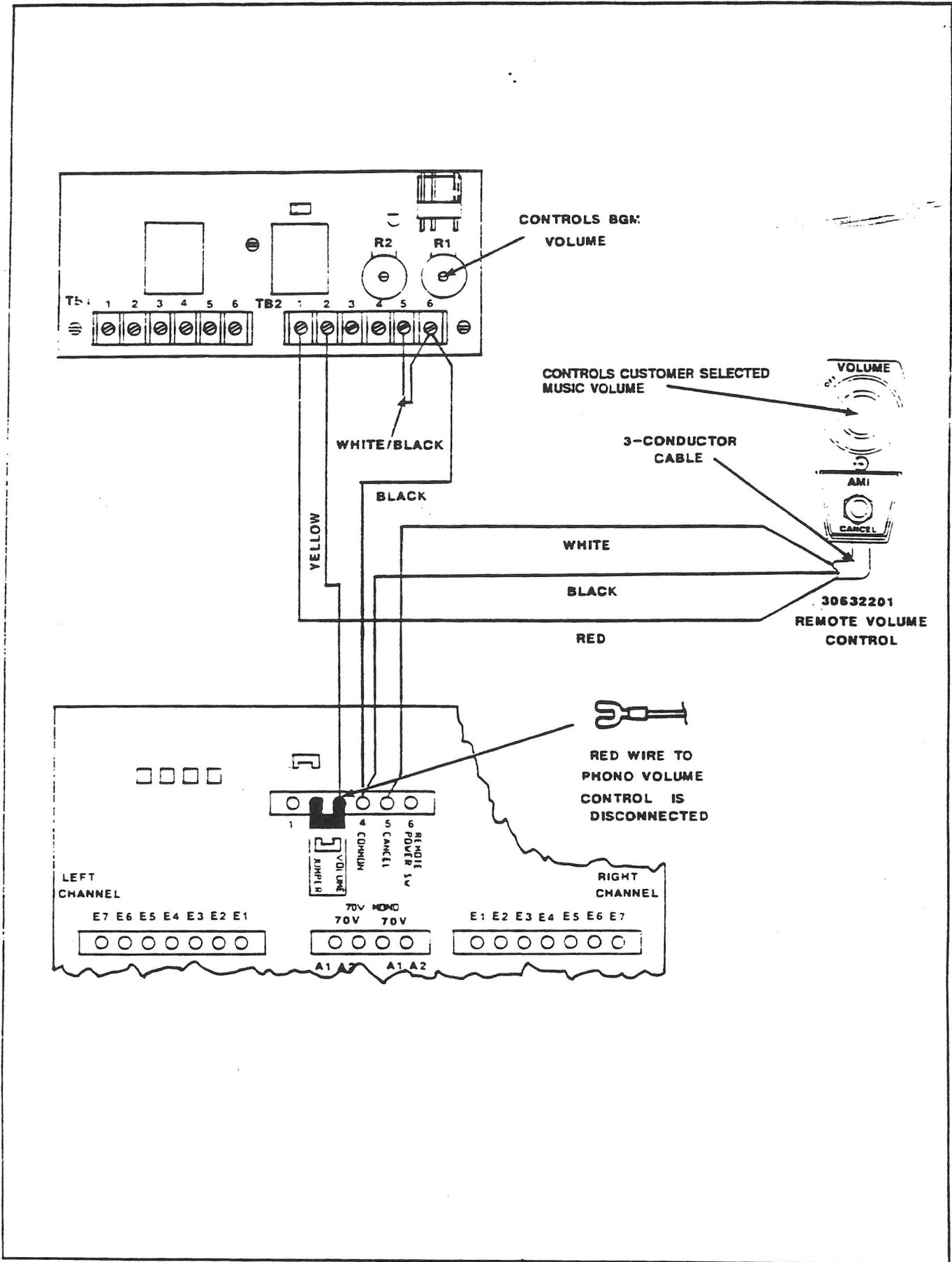
A1 A2 A1 A2

RIGHT
CHANNEL

E1 E2 E3 E4 E5 E6 E7

Stereo Option B

Stereo Option C

Normal Play: Remote volume control sets the volume in all rooms
Autoplay: Control R1 on the volume control circuit board sets the volume in all rooms

1. Install the remote volume control cable between the phonograph and the remote location and connect the REMOTE VOLUME CONTROL to a 3-conductor cable. If the colors in your 3-wire cable are not *Black, White,* and *Red,* make a note of the wire colors that connect to the *Black, White,* and *Red* terminals on the REMOTE VOLUME CONTROL.

2. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 2,* or *3* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and cover the spade lug with a piece of electrical tape so that the lug does not short to anything.

3. Connect one end of the *Yellow* wire in the harness to *Terminal 3* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to *TB-2, Terminal 2.*

4. Connect the *Black* wire from the REMOTE VOLUME CONTROL and the *Black* wire in the harness to the VOLUME CONTROL STRIP COMMON terminal (two wires should be connected to the COMMON terminal).

5. Connect the *White* wire from the REMOTE VOLUME CONTROL to VOLUME CONTROL STRIP CANCEL.

6. Connect the *Red* wire from the REMOTE VOLUME CONTROL to *TB-2, Terminal 1.*

7. Connect the *White/Black* wire in the harness to *TB-2 Terminals 5 and 6* but do not tighten the screw in *Terminal 6.*

8. Connect the free end of the *Black* wire to *TB-2, Terminal 6* and tighten the screw.

9. Turn R1 fully counter-clockwise.

10. Turn the REMOTE VOLUME CONTROL fully counter-clockwise. Plug in the phonograph power, turn it on, make a selection, and set the REMOTE VOLUME CONTROL to the desired level.

11. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

12. Turn R1 clockwise until the music is at the desired level and then plug P15 back into the central control computer.

13. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III.*

14. Review *Part IV* and make any speaker connections that you wish to make.

CONTROLS BGM VOLUME

CONTROLS CUSTOMER SELECTED MUSIC VOLUME

VOLUME

AMI

CANCEL

3-CONDUCTOR CABLE

WHITE/BLACK

BLACK

YELLOW

WHITE

BLACK

RED

30632201
REMOTE VOLUME CONTROL

RED WIRE TO PHONO VOLUME CONTROL IS DISCONNECTED

R2   R1

TB1   1 2 3 4 5 6   TB2 1 2 3 4 5 6

1   4 5 6
         COMMON CANCEL REMOTE POWER 5V

R1 VOLUME JUMPER

LEFT CHANNEL

E7 E6 E5 E4 E3 E2 E1

70V MONO
70V   70V

A1 A2   A1 A2

RIGHT CHANNEL

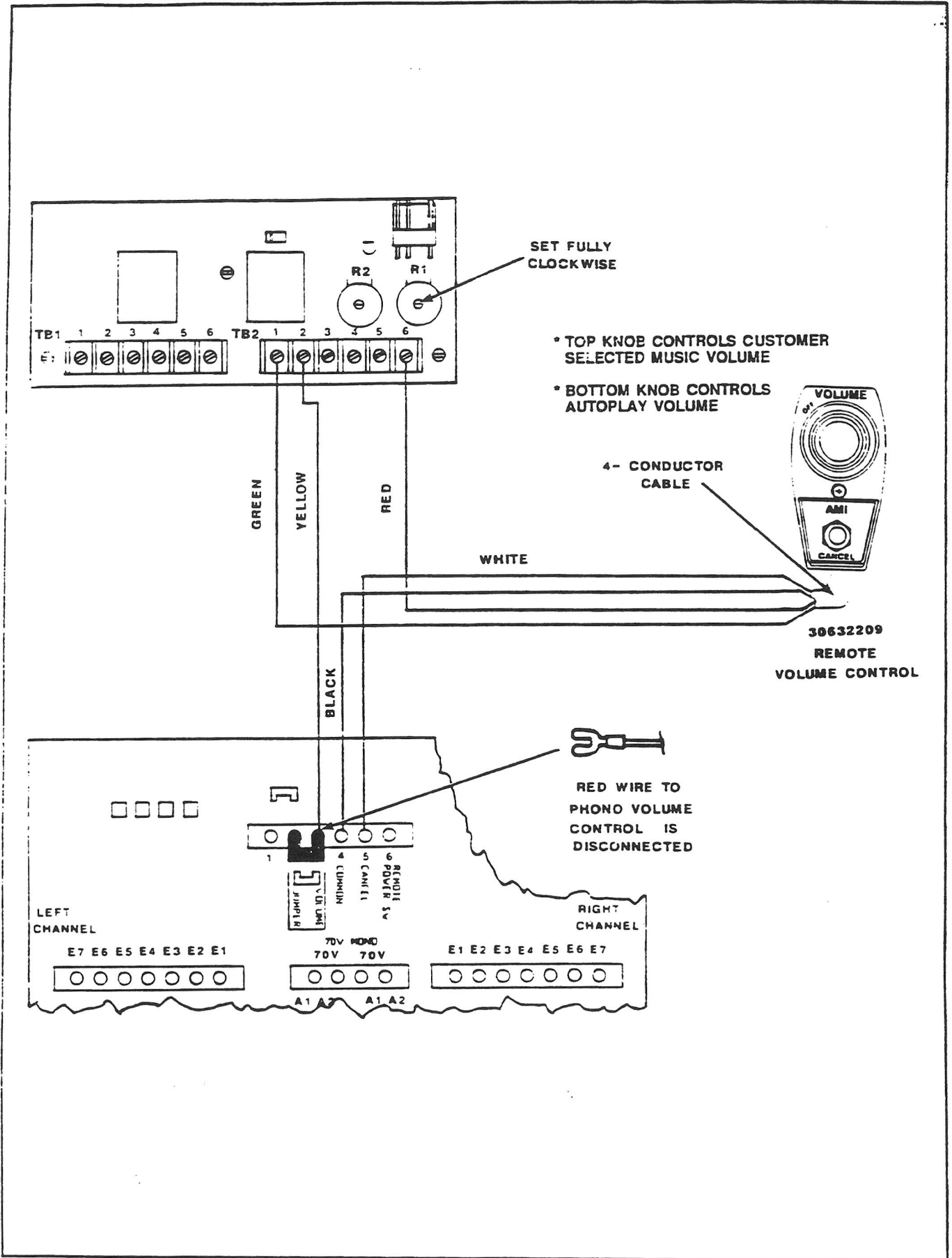E1 E2 E3 E4 E5 E6 E7

Stereo Option C

STEREO OPTION D

Normal Play: One knob of a dual remote volume control sets the volume in all rooms
Autoplay: The other knob of the dual remote volume control sets the volume in all rooms

1. Install the dual remote volume control cable between the phonograph and the remote location and connect the remote volume control to a 4-conductor cable. If the colors in your 4-wire cable are not *Black, White, Red, and Green* make a note of the wire colors that connect to the *Black, White, Red, and Green* terminals on the DUAL REMOTE VOLUME CONTROL.

2. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 2, or 3* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and cover the spade lug with a piece of electrical tape so that the lug does not short to anything.

3. Connect one end of the *Yellow* wire in the harness to *Terminal 3* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to *TB-2, Terminal 2.*

4. Connect the *Black* wire from the DUAL REMOTE VOLUME CONTROL to the VOLUME CONTROL STRIP COMMON terminal (one wire should be connected to the COMMON terminal).

5. Connect the *White* wire from the DUAL REMOTE VOLUME CONTROL to VOLUME CONTROL STRIP CANCEL.

6. Connect the *Red* wire from the REMOTE VOLUME CONTROL to *TB-2, Terminal 6.*

7. Connect the *Green* wire from the DUAL REMOTE VOLUME CONTROL to *TB-2 Terminal 1.*

8. Turn R1 and R2 fully clockwise[1].

9. Turn the both of the DUAL REMOTE VOLUME CONTROL knobs fully counter-clockwise. Plug in phonograph, turn it on, and make a selection.

10. Turn the TOP KNOB on the DUAL VOLUME CONTROL to set the music level to the desired level.

11. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

12. Turn the BOTTOM KNOB until the music is at the desired level and then plug P15 back into the central control computer.

13. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III.*

14. Review *Part IV* and make any speaker connections that you wish to make.

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[1] R1 and R2 can be set less than fully clockwise to limit the maximum volume of Autoplay selections

SET FULLY
CLOCKWISE

R2   R1

TB1 1 2 3 4 5 6   TB2 1 2 3 4 5 6

E:

* TOP KNOB CONTROLS CUSTOMER
  SELECTED MUSIC VOLUME

* BOTTOM KNOB CONTROLS
  AUTOPLAY VOLUME

VOLUME

AMI

CANCEL

4- CONDUCTOR
CABLE

GREEN   YELLOW   RED

WHITE

30632209
REMOTE
VOLUME CONTROL

BLACK

RED WIRE TO
PHONO VOLUME
CONTROL   IS
DISCONNECTED

1   4   5   6
COMMON CANCEL REMOTE VOL 5V

JUMPER

70V MONO
70V   70V

LEFT
CHANNEL

E7 E6 E5 E4 E3 E2 E1

RIGHT
CHANNEL

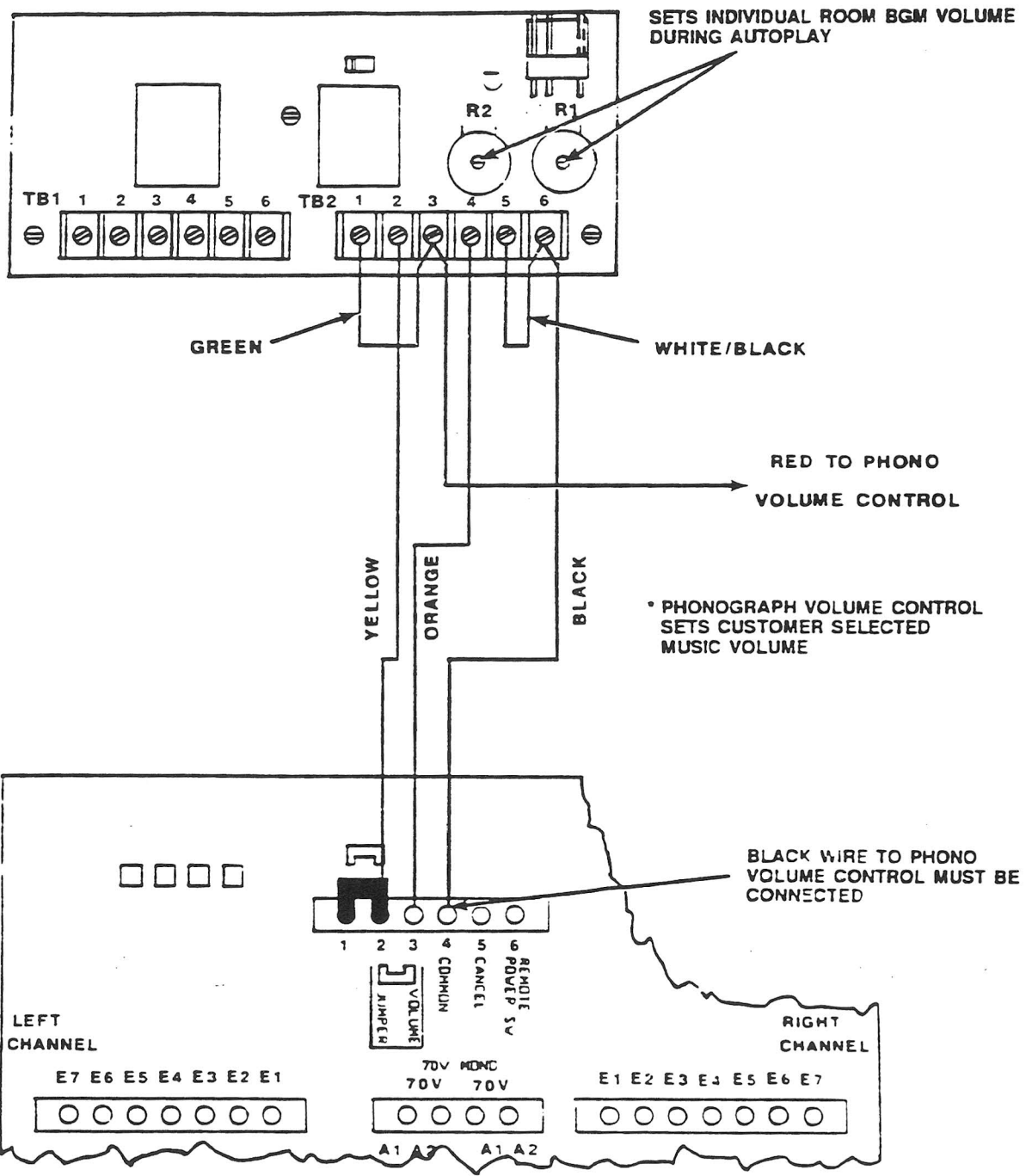E1 E2 E3 E4 E5 E6 E7

A1 A2   A1 A2

Stereo Option D

MONO OPTION A

Normal Play: Phonograph volume control sets the volume in two rooms to the same level

Autoplay: Controls R1 and R2 set the volume in rooms #1 and #2

1. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 1* or *2* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and make sure that the VOLUME JUMPER is on *Terminals 1 and 2* as shown.

2. Connect one end of the *Yellow* wire in the volume control harness to *Terminal 2* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to *TB-2, Terminal 2*.

3. Connect the *White* wire in the volume control harness to *TB-2, Terminals 1 and 3* but do not tighten the screw on *Terminal 3*.

4. Connect the *Red* wire from the phonograph volume control to *TB-2, Terminal 3* and tighten the screw.

5. Connect one end of the *Orange* wire in the volume control harness to VOLUME CONTROL STRIP *Terminal 3* and connect the other end to *TB-2, Terminal 4*.

6. Connect the *White/Black* wire to *TB-2, Terminals 5 and 6* but do not tighten the screw on *Terminal 6*.

7. Connect the *Black* wire in the volume control harness between the VOLUME CONTROL STRIP, *Terminal 4* and *TB-2, 6* and tighten the screw on *Terminal 6*.

8. Connect the *Black* wire from the phonograph volume control to the VOLUME CONTROL STRIP, *Terminal 4*.

9. Set the STEREO/MONO switch to the MONO position.

10. Turn R1 and R2 fully counter-clockwise. Plug in the phonograph, turn it on, and make a selection.

11. Set the phonograph volume control to the desired level (both rooms will be at the same level).

12. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

13. Turn R1[1] clockwise until the background music in Room #1 is at the desired level and then plug P15 back into the central control computer.

14. Turn R2[1] clockwise until the background music in Room #2 is at the desired level.

15. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III*.

16. Review *Part IV* and make any speaker connections that you wish to make.

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[1]If you turn this control and the volume does not change, check the volume control plug on the amplifier, pull the plug, turn it over, and plug it back in. Adjust the volume to the desired level

SETS INDIVIDUAL ROOM BGM VOLUME
DURING AUTOPLAY

R2   R1

TB1 1 2 3 4 5 6   TB2 1 2 3 4 5 6

GREEN

WHITE/BLACK

RED TO PHONO

VOLUME CONTROL

YELLOW

ORANGE

BLACK

* PHONOGRAPH VOLUME CONTROL
  SETS CUSTOMER SELECTED
  MUSIC VOLUME

BLACK WIRE TO PHONO
VOLUME CONTROL MUST BE
CONNECTED

1 2 3 4 5 6

VOLUME
JUMPER

COMMON
CANCEL
REMOTE
POWER 5V

LEFT
CHANNEL

70V MONO
70V   70V

RIGHT
CHANNEL

E7 E6 E5 E4 E3 E2 E1

E1 E2 E3 E4 E5 E6 E7

A1 A2   A1 A2

Mono Option A

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MONO OPTION B

Normal Play: Room #1 is set by the phonograph volume control and Room #2 is set by a remote volume control

Autoplay: Controls R1 and R2 on the volume control board set the volume in Rooms #1 and #2

1. Install the remote volume control cable between the phonograph and the remote location and connect the REMOTE VOLUME CONTROL to a 3-conductor cable. If the colors in your 3-wire cable are not *Black, White,* and *Red,* make a note of the wire colors that connect to the *Black, White,* and *Red* terminals on the REMOTE VOLUME CONTROL.

2. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 1 or 2* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and make sure that the VOLUME JUMPER is on *Terminals 1 and 2* as shown.

3. Connect one end of the *Yellow* wire in the harness to *Terminal 2* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to *TB-2, Terminal 2.*

4. Connect the *Red* wire from the phonograph volume control to *TB-2, Terminal 1* and tighten the screw.

5. Connect one end of the *Orange* wire in the harness to VOLUME CONTROL STRIP *Terminal 3* and connect the other end to *TB-2, Terminal 4.*

6. Connect the *White/Black* wire to *TB-2, Terminals 5 and 6* but do not tighten the screw on *Terminal 6.*

7. Connect the *Black* wire between the VOLUME CONTROL STRIP, *Terminal 4* and *TB-2, 6* and do not tighten the screw on *TB-2, Terminal 4.*

8. Make sure that the *Black* wire to the phonograph volume control is connected to the VOLUME CONTROL STRIP, *Terminal 4.*

9. Connect the *Black* wire from the REMOTE VOLUME CONTROL to the VOLUME CONTROL STRIP COMMON screw.

10. Connect the *White* wire from the REMOTE VOLUME CONTROL to VOLUME CONTROL STRIP CANCEL.

11. Connect the *Red* wire from the REMOTE VOLUME CONTROL to *TB-2, Terminal 3.*

12. Turn R1 and R2 fully counter-clockwise. Plug in the phonograph, turn it on, and make a selection.

13. Set the STEREO/MONO switch to the MONO position.

14. Set the phonograph volume control to the desired level for Room #1. Set the REMOTE VOLUME CONTROL to the desired level for Room #2.

15. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

16. Turn R1[1] clockwise until the background music in Room #1 is at the desired level and then plug P15 back into the central control computer.

17. Turn R2[1] clockwise until the background music in Room #2 is at the desired level.

18. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III*.

19. Review *Part IV* and make any speaker connections that you wish to make.
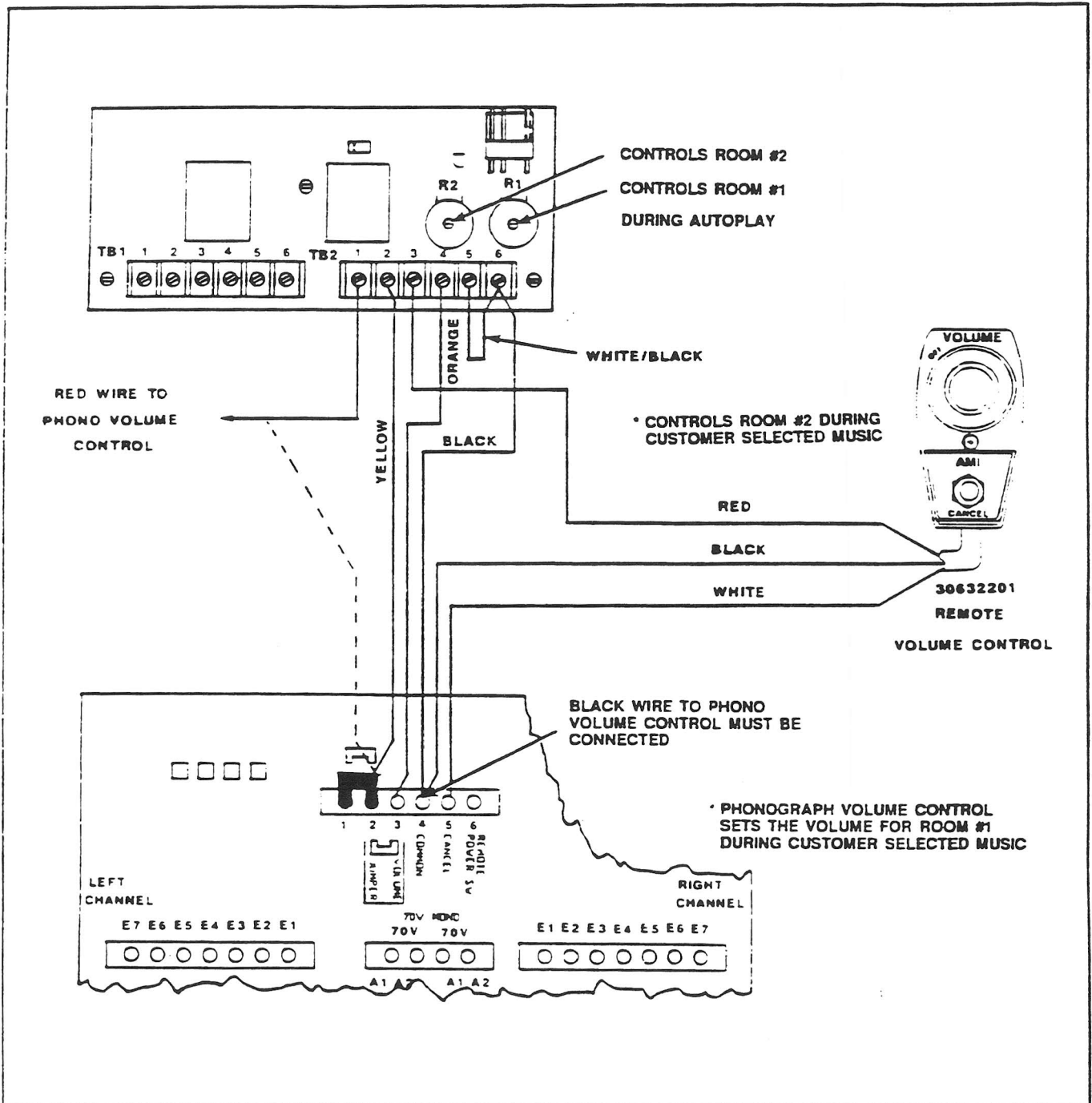
Mono Option B

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[1] If you turn this control and the volume does not change, check the volume control plug on the amplifier, pull the plug, turn it over, and plug it back in. Adjust the volume to the desired level
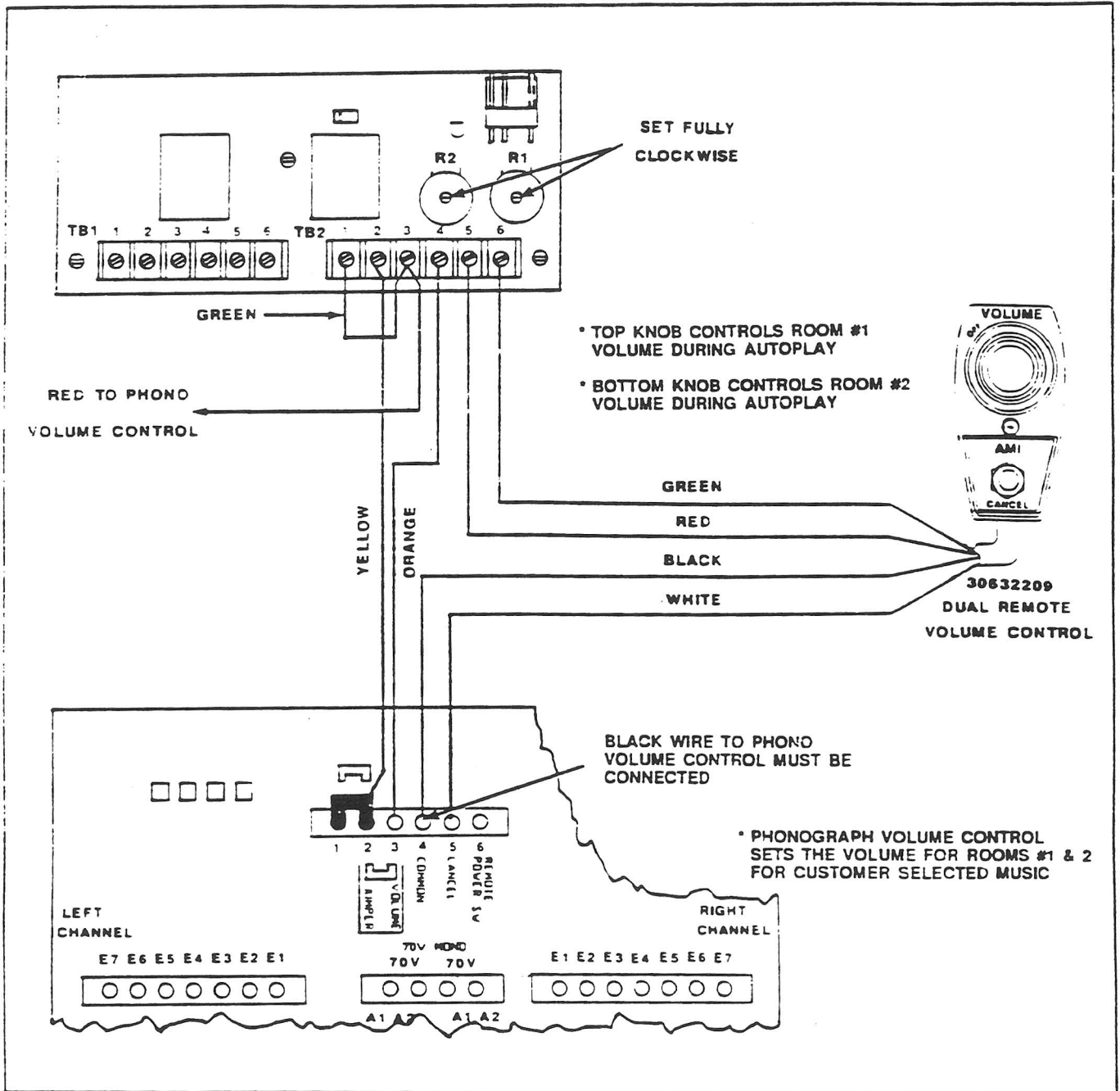
MONO OPTION C

Normal Play: Phonograph volume control sets the volume in all rooms
Autoplay: A dual remote volume control sets the volume in Rooms #1 and #2

1. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 1, 2,* or *3* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and make sure that the VOLUME JUMPER is on *Terminals 1 and 2* as shown.

2. Connect one end of the *Yellow* wire in the harness to *Terminal 2* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to *TB-2, Terminal 2.*

3. Connect the *White* wire in the harness to *TB-2, Terminals 1 and 3* but do not tighten the screw on *Terminal 3.*

4. Connect the *Red* wire from the phonograph volume control to *TB-2, Terminal 3* and tighten the screw.

5. Connect one end of the *Orange* wire in the harness to VOLUME CONTROL STRIP *Terminal 3* and connect the other end to *TB-2, Terminal 4.*

6. Make sure that the *Black* wire from the phonograph volume control is connected to the VOLUME CONTROL STRIP, *Terminal 4.*

7. Connect the *Red* wire from the DUAL REMOTE VOLUME CONTROL to *TB-2, Terminal 5.*

8. Connect the *Green* wire from the DUAL REMOTE VOLUME CONTROL to *TB-2, 6.*

9. Connect the *Black* wire from the DUAL REMOTE VOLUME CONTROL to the VOLUME CONTROL STRIP, *Terminal 4.*

10. Make sure that the *Black* wire to the phonograph volume control is connected to the VOLUME CONTROL STRIP, *Terminal 4.*

11. Connect the *White* wire from the DUAL REMOTE VOLUME CONTROL to the VOLUME CONTROL STRIP, *Terminal 5.*

12. Set the STEREO/MONO switch to the MONO position.

13. Turn R1 and R2 fully clockwise[1]. Plug in the phonograph, turn it on, and make a selection.

14. Turn both knobs on the DUAL REMOTE VOLUME CONTROL fully counter-clockwise.

15. Set the phonograph volume control to the desired level (both rooms will be at the same level).

16. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

---

[1] R1 and R2 can be set less than fully clockwise to limit the maximum volume of Autoplay selections

17. Turn the top knob on the DUAL REMOTE VOLUME CONTROL clockwise until the background music in Room #1 is at the desired level[1] and then plug P15 back into the central control computer.

18. Turn the bottom knob on the DUAL REMOTE VOLUME CONTROL clockwise until the background music in Room #2 is at the desired level[2].

19. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III*.

18. Review *Part IV* and make any speaker connections that you wish to make.

Mono Option C

---

[1]If you turn this control and the volume does not change, check the volume control plug on the amplifier, pull the plug, turn it over, and plug it back in. Adjust the volume to the desired level
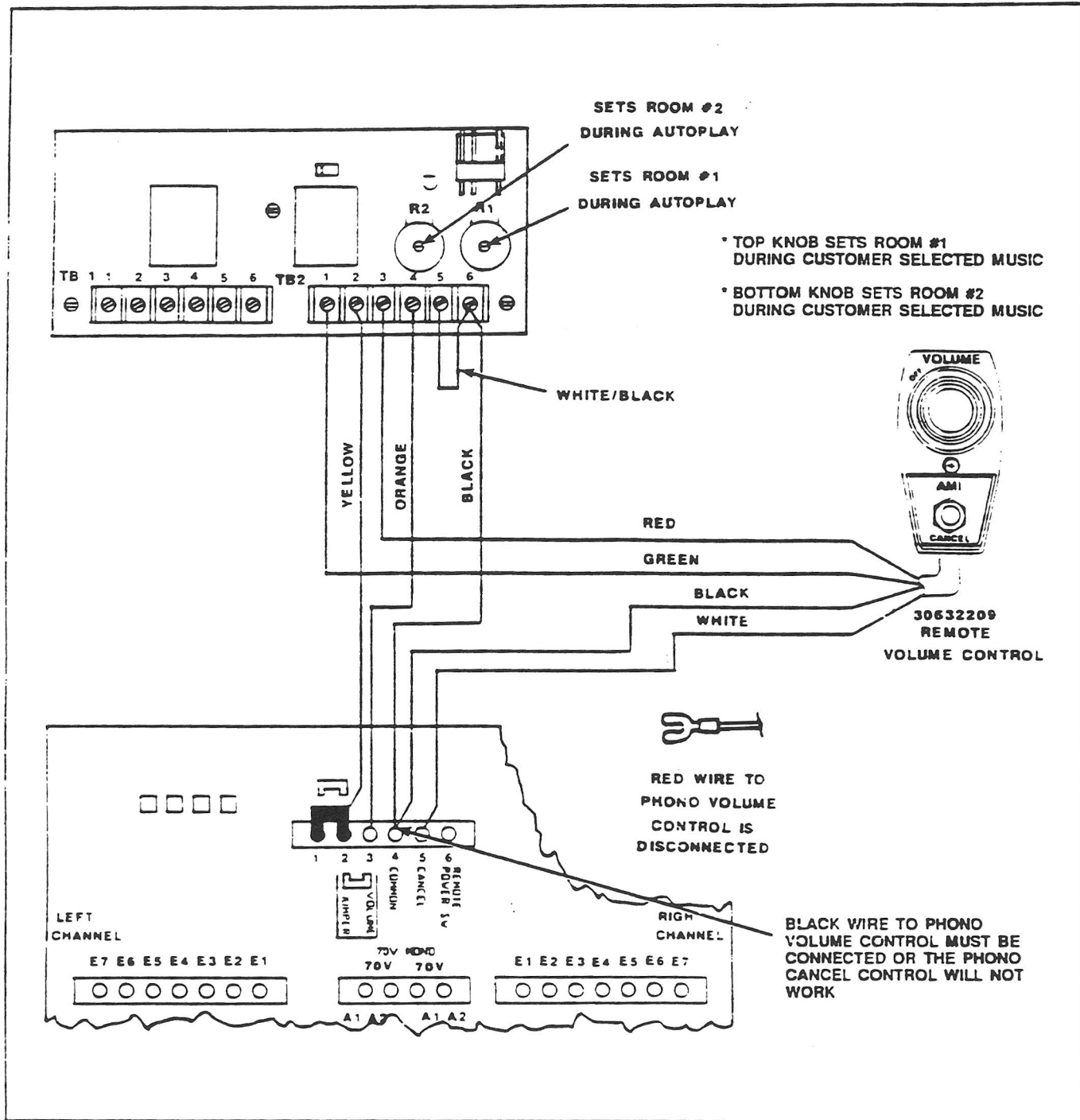
MONO OPTION D

Normal Play: Room #1 and Room #2 by a dual remote volume control
Autoplay: Controls R1 and R2 on the volume control circuit board set the volume in Rooms #1 and #2

1. Install the dual remote volume control cable between the phonograph and the remote location and connect the remote volume control to a 4-conductor cable. If the colors in your 4-wire cable are not *Black, White, Red, and Green* make a note of the wire colors that connect to the *Black, White, Red, and Green* terminals on the DUAL REMOTE VOLUME Control.

2. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 1 or 2* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and cover the spade lug with a piece of electrical tape so that the lug does not short to anything. Make sure that the VOLUME JUMPER is on *Terminals 1 and 2* as shown.

3. Make sure that the *Black* wire from the phonograph volume control is connected to the VOLUME CONTROL TERMINAL STRIP, *Terminal 4.*

4. Connect one end of the *Yellow* wire in the harness to *Terminal 2* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to TB-2, *Terminal 2.*

5. Connect the *Green* wire from the DUAL REMOTE VOLUME CONTROL to TB-2, *Terminal 1.*

6. Connect one end of the *Orange* wire in the volume control harness to VOLUME CONTROL STRIP *Terminal 3* and connect the other end to TB-2, *Terminal 4.*

7. Connect the *White/Black* wire in the volume control harness to TB-2, *Terminals 5 and 6* but do not tighten the screw on *Terminal 6.*

8. Connect the *Black* wire in the volume control harness between the VOLUME CONTROL STRIP COMMON and TB-2, *6* and do not tighten the screw on the VOLUME CONTROL STRIP.

9. Connect the *Black* wire from the REMOTE VOLUME CONTROL to the VOLUME CONTROL STRIP COMMON (3 wires will be on *Terminal 4*).

10. Connect the *White* wire from the REMOTE VOLUME CONTROL to VOLUME CONTROL STRIP CANCEL.

11. Connect the *Red* wire from the REMOTE VOLUME CONTROL to TB-2, *Terminal 3.*

12. Set the STEREO/MONO switch to the MONO position.

13. Turn R1 and R2 fully counter-clockwise. Plug in the phonograph, turn it on, and make a selection.

14. Turn both knobs on the DUAL REMOTE VOLUME CONTROL fully counter-clockwise.

15. Set the top knob on the DUAL REMOTE VOLUME CONTROL to the desired level for Room #1. Set the bottom knob of the REMOTE VOLUME CONTROL to the desired level for Room #2.

16. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

17. Turn R1 clockwise until the background music in Room #1 is at the desired level[1] and then plug P15 back into the central control computer.

18. Turn R2 clockwise until the background music in Room #2 is at the desired level[1].

19. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III*.

20. Review *Part IV* and make any speaker connections that you wish to make.

Mono Option D

MONO OPTION E

Normal Play: Room #1 by the phonograph volume control and Room #2 by a remote volume control
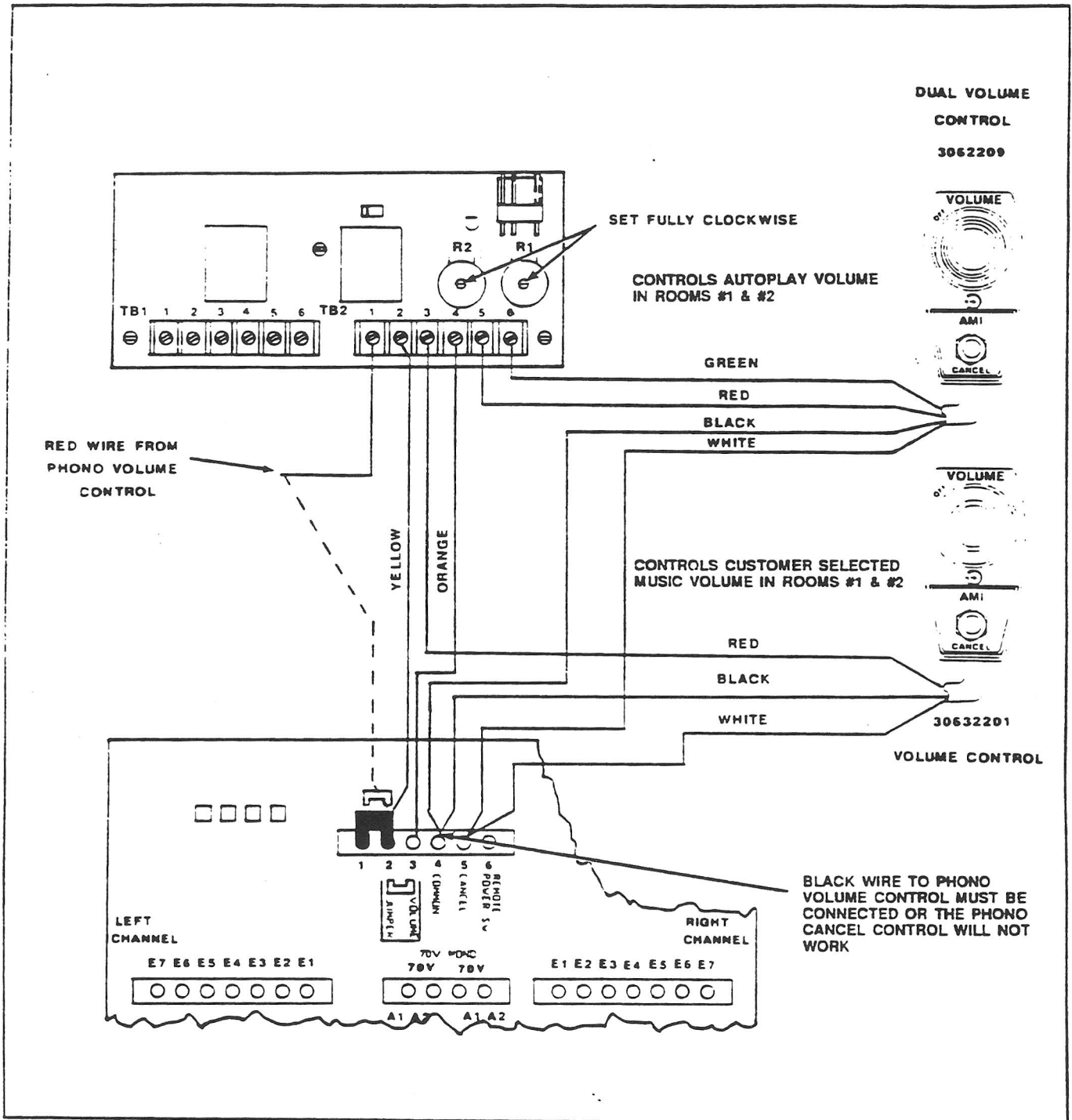
Autoplay: A dual remote volume control sets the volume in Rooms #1 and #2

1. Install the dual remote volume control cable between the phonograph and the remote location and connect the remote volume control to a 4-conductor cable. If the colors in your 4-wire cable are not *Black, White, Red, and Green* make a note of the wire colors that connect to the *Black, White, Red, and Green* terminals on the DUAL REMOTE VOLUME CONTROL. This control sets the volume for BGM.

2. Install the remote volume control cable between the phonograph and the remote location and connect the REMOTE VOLUME CONTROL to a 3-conductor cable. If the colors in your 3-wire cable are not *Black, White, and Red,* make a note of the wire colors that connect to the *Black, White, and Red* terminals on the REMOTE VOLUME CONTROL. This control sets the volume for normal play music in Room #2.

3. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 1* or *2* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and make sure that the VOLUME JUMPER is on *Terminals 1 and 2* as shown.

4. Connect one end of the *Yellow* wire in the harness to *Terminal 2* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to *TB-2, Terminal 2.*

5. Connect the *Black* wire from the from the phonograph volume control to the VOLUME CONTROL STRIP, *Terminal 4.*

6. Connect the *Red* wire from the phonograph volume control to *TB-2, Terminal 1.*

7. Connect one end of the *Orange* wire in the harness to VOLUME CONTROL STRIP *Terminal 3* and connect the other end to *TB-2, Terminal 4.*

8. Connect the *Red* wire from the DUAL REMOTE VOLUME CONTROL to *TB-2, Terminal 5.*

9. Connect the *Green* wire from the DUAL REMOTE VOLUME CONTROL to *TB-2, 6.*

10. Connect the *Black* wires from both the DUAL REMOTE VOLUME CONTROL and the REMOTE VOLUME CONTROL to VOLUME CONTROL STRIP COMMON.

11. Connect the *White* wires from the DUAL REMOTE VOLUME CONTROL and the REMOTE VOLUME CONTROL to VOLUME CONTROL STRIP CANCEL.

12. Connect the *Red* wire from the REMOTE VOLUME CONTROL to *TB-2, Terminal 3.*

13. Turn R1 and R2 fully clockwise[2]. Plug in the phonograph, turn it on, and make a selection.

14. Set the STEREO/MONO switch to the MONO position.

15. Turn both the REMOTE and the PHONOGRAPH VOLUME CONTROLS fully counter-clockwise.

16. Set the phonograph volume control to the desired level[3] for Room #1 and set the REMOTE VOLUME CONTROL to the desired level[2] for Room #2.

17. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

---

[2]R1 and R2 can be set less than fully clockwise to limit the maximum volume of Autoplay selections

[3]If you turn this control and the volume does not change, check the volume control plug on the amplifier, pull the plug, turn it over, and plug it back in. Adjust the volume to the desired level

18. Turn both DUAL REMOTE VOLUME CONTROL knobs fully counter-clockwise and then plug P15 back into the central control computer.

19. Turn the top knob on the DUAL REMOTE VOLUME CONTROL clockwise until the background music in Room #1 is at the desired level[2].

20. Turn the bottom knob on the DUAL REMOTE VOLUME CONTROL clockwise until the background music in Room #2 is at the desired level[2].

21. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III*.

22. Review *Part IV* and make any speaker connections that you wish to make.

Mono Option E

MONO OPTION F

**Normal Play:** A dual remote volume control sets the volume in Rooms #1 and #2
Autoplay: A second dual remote volume control sets the volume in Rooms #1 and #2

1. Install the dual remote volume control cable between the phonograph and the remote location and connect the remote volume control to a 4-conductor cable. If the colors in your 4-wire cable are not *Black, White, Red, and Green* make a note of the wire colors that connect to the *Black, White, Red, and Green* terminals on the DUAL REMOTE VOLUME CONTROL.

2. Install the dual remote volume control cable between the phonograph and the remote location and connect the remote volume control to a 4-conductor cable. If the colors in your 4-wire cable are not *Black, White, Red, and Green* make a note of the wire colors that connect to the *Black, White, Red, and Green* terminals on the DUAL REMOTE VOLUME CONTROL.

3. Open the phonograph top door and locate the *Red* phonograph volume control wire (it is connected to *Terminal 1 or 2* on the VOLUME CONTROL STRIP). Disconnect the *Red* wire from the VOLUME CONTROL STRIP and cover the spade lug with a piece of electrical tape so that the lug does not short to anything. Make sure that the VOLUME JUMPER is on *Terminals 1 and 2* as shown.

4. Connect one end of the *Yellow* wire in the harness to *Terminal 2* of the VOLUME CONTROL STRIP and connect the other end of the *Yellow* wire to *TB-2, Terminal 2*.

5. Connect the *Black* wire from the PHONOGRAPH VOLUME CONTROL to the VOLUME CONTROL STRIP, *Terminal 4*.

6. Connect one end of the *Orange* wire in the harness to VOLUME CONTROL STRIP *Terminal 3* and connect the other end to *TB-2, Terminal 4*.

7. Connect the *Red* wire from the *Customer Selection* DUAL REMOTE VOLUME CONTROL to *TB-2, Terminal 3*.

8. Connect the *Red* wire from the *Autoplay* DUAL REMOTE VOLUME CONTROL to *TB-2, Terminal 5*.

9. Connect the *Green* wire from the *Customer Selection* DUAL REMOTE VOLUME CONTROL which is to control normal play volume to *TB-2, 1*.

10. Connect the *Green* wire from the *Autoplay* DUAL REMOTE VOLUME CONTROL to *TB-2, 6*.

11. Connect the *Black* wires from both DUAL REMOTE VOLUME CONTROLS to the VOLUME CONTROL STRIP COMMON.

12. Connect the *White* wires from both DUAL REMOTE VOLUME CONTROLS to the VOLUME CONTROL STRIP CANCEL.

13. Turn both DUAL REMOTE VOLUME CONTROLS fully counter-clockwise.

14. Turn R1 and R2 fully clockwise[4]. Plug in the phonograph, turn it on, and make a selection.

15. Set the STEREO/MONO switch to the MONO position.

16. Set the *Customer Selection* DUAL REMOTE VOLUME CONTROL to the desired level[5] for Room #1 (top knob) and Room #2 (bottom knob).

---

[4]R1 and R2 can be set less than fully clockwise to limit the maximum volume of Autoplay selections

[5]If you turn this control and the volume does not change, check the volume control plug on the amplifier, pull the plug, turn it over, and plug it back in. Adjust the volume to the desired level

17. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

18. Set the top knob on the *Autoplay* DUAL REMOTE VOLUME CONTROL to the desired level[2] for Room #1 (top knob) and Room #2 (bottom knob) and then plug P15 back into the central control computer.

19. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III*.

20. Review *Part IV* and make any speaker connections that you wish to make.
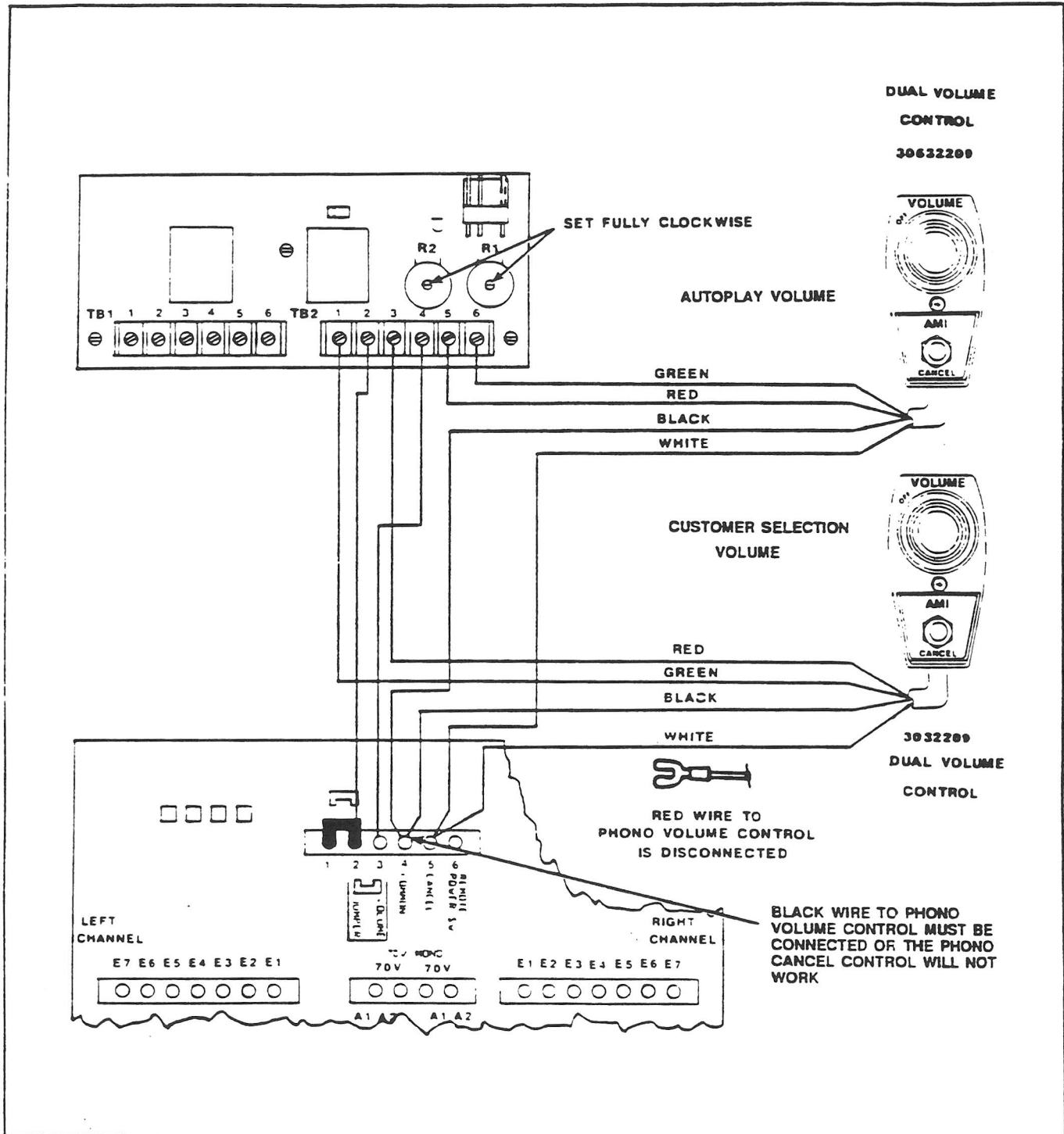
Mono Option F

III. SETTING AUTOPLAY OPTIONS

The Autoplay feature is factory preset to play one track after the phonograph has been idle for 20 minutes. This feature may be programmed for any length of time between 0 and 255 minutes. Selections may be played in a specific sequence.
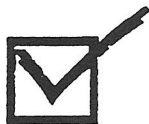
> ☑ **NOTE:**
>
> Autoplay must be ON, the START time must be met

A. Turning Autoplay On And Off

CD-100 Phonographs are shipped from the factory with the AUTOPLAY mode turned ON and set for a 20-minute delay. The AUTOPLAY mode must be set to OFF to turn Autoplay OFF. If AUTOPLAY mode is ON, Autoplay is turned ON.

To change the AUTOPLAY mode:

1. Enter the SERVICE mode by setting the SERVICE switch to the SERVICE position.

2. Type 0 to select the SECURITY menu. Type 0 again to select the CODE ENTRY function. Enter the 4-digit Level 3 security code and then press POPULAR.

3. Press and hold RESET while you press POPULAR twice (to get back to the MAIN menu).

4. Press 4 to select the AUTOPLAY menu. Press 0 to select the AUTOPLAY mode option.

5. Press and hold RESET then press 9. This will toggle the AUTOPLAY mode between ON and OFF. Press POPULAR to select the option when it is displayed the way you want it.

B. Setting The Delay Time:

Displays and sets the time between Autoplay selections.

1. Press and hold RESET while you press POPULAR twice (to get back to the MAIN menu).

2. Press 4 to select the AUTOPLAY menu. Press 1 to select the AUTOPLAY mode option.

3. Type the number in minutes then press POPULAR.

C: Setting The Start Time:

Sets the time-of-day that Autoplay is allowed to begin making Autoplay selections. Enter the time in 24-hour format (see table 1 that follows Stop Time).

1. Press and hold RESET while you press POPULAR twice (to get back to the MAIN menu).

2. Press 4 to select the AUTOPLAY menu. Press 2 to select the AUTOPLAY mode option.

3. Type the hour then press POPULAR. Type the minute then press POPULAR. Both the hour and minute must be changed (you can not change just the minutes or just the hours).

D: Setting The Stop Time:

Sets the time-of-day that Autoplay will no longer be allowed to make selections. If you are not familiar with 24-hour time keeping, use the following table to help you figure the 24-hour time.

Table 1. 24-Hour Clock times:

00:00 = Midnight (23:59 is 1 minute before midnight. 00:00 is 12-midnight)

12:00 = Noon (11:59 is one minute before noon, 12:00 is 12-noon)

00:00 to 12:59   (Midnight to 12:59 in the afternoon is entered as you would normally enter time

1:00 pm is entered as 13:00, and all succeeding times are entered as 12 + the hour.

1:00 pm = 13:00	7:00 pm = 19:00
2:00 pm = 14:00	8:00 pm = 20:00
3:00 pm = 15:00	9:00 pm = 21:00
4:00 pm = 16:00	10:00 pm = 22:00
5:00 pm = 17:00	11:00 pm = 23:00
6:00 pm = 18:00	12:00 am = 00:00

1. Press and hold RESET while you press POPULAR twice (to get back to the MAIN menu).

2. Press 4 to select the AUTOPLAY menu. Press 3 to select the AUTOPLAY mode option.

3. Type the hour then press POPULAR. Type the minute then press POPULAR. Both the hour and minute must be changed (you can not change just the minutes or just the hours).

E. Selecting On Days (SMTWTFS):

Allows you to select the days of the week that Autoplay can make selections.

1. Press and hold RESET while you press POPULAR twice (to get back to the MAIN menu).

2. Press 4 to select the AUTOPLAY menu. Press 4 to select the AUTOPLAY mode option.

3. Press and hold RESET then press either 2 or 3 to move from day to day. The day currently selected will blink. Hold RESET and then press 9 to turn the day ON or OFF. Press POPULAR to save any changes.

F. Entering Disc Selections For Autoplay (Programmed Autoplay):

Displays and changes the individual selection numbers that will be played. This mode allows you have Autoplay play specific disc and track selections. A maximum of 100 selections can be programmed. On the menu, the two-digit number is the play sequence number and the four-digit number is the selection number.

If no programmed selections are made, the Autoplay function will select a random disc and a random track each time Autoplay makes a selection. If one or more selections are programmed, the programmed selections will be selected. A disc number followed by two zeros can be programmed. If you request disc 6300, for example, then Disc 63 will be programmed and a random track will be played from that disc.

G. Programming Autoplay

If a selection is not programmed for the displayed sequence number, four dashes will appear. When first received from the factory, none of these options will have any selections programmed. You can program up to 100 autoplay selections. The program sequence number will start at 00 and go to 1 less than the maximum possible programmed selections. For example, the sequence numbers for programmed selections will start at 00 and go to 99.

All selections must be in consecutive locations. You may not have a "hole" in the sequence. For example, Sequence Location 00 is programmed to Selection 1305. The next Autoplay selection must be entered in Sequence Location 01. The phonograph will not allow you to use Sequence Location 03 without using Sequence Location 02 first.

If you are at Security Level 3 and have the Autoplay programming option on the display, you will notice the 1's digit of the sequence number will be blinking. The blinking digit indicates it may be changed. Type the sequence number where the new selection is to be entered then push POPULAR. If the sequence number entered would create a hole, the display will change to show the next available sequence number. The 1's digit in the selection number will now blink. Type in a four digit selection number then push popular to save it. The 1's digit in the sequence number will now blink allowing another sequence number to be entered.

If you try to enter a selection from a disk that has limits of 0 (the disk is not installed in the machine or it has not yet been initialized), the four dashes will reappear when POPULAR is pushed.

By holding RESET and pushing 3, the next sequence number and selection will be displayed. Holding RESET and pushing 2 will display the previous sequence number.

H. Editing Autoplay Selections

Security Level 3 is needed to edit programmed sequence selection numbers.

Change a selection number, use RESET + 2 and RESET + 3 to scan the sequence looking for the selection to be changed. If the sequence number of the selection to be changed is known, simply type the sequence number. When the proper selection is displayed, push POPULAR to move the blinking digit to the 1's position of the selection number. Type in the new selection number then push POPULAR.

If you try to enter a selection from a disk that has limits of 0 (the disk is not installed or not yet initialized), the original selection will be automatically reinserted when POPULAR is pushed.

Delete a selection number, locate that selection as described above. Push and hold RESET then push 4 once. The selection will be deleted. The next selection will be moved down into this sequence number to fill the hole the deletion would have left.

Add a selection in the middle of a list, locate the selection previous to selection you want to enter. Hold RESET and push 5 once. This will open a hole in the list. Type the new selection number then push POPULAR. If you try to enter a selection from a disk that has limits of 0 (the disk is not installed in the machine or it has not yet been initialized), selection 0001 will be inserted automatically.

1. Press and hold RESET while you press POPULAR twice (to get back to the MAIN menu).

2. Press 4 to select the AUTOPLAY menu. Press 5 to select the Autoplay program option *(see the SERVICE MODE MAP on the next page).*

3. Use the CHANGE, DELETE, or ADD steps described at the beginning of this section *(Section H)* to edit the Autoplay program.

I. Clearing Programmed Mode

Clears all programmed selections.

1. Press and hold RESET while you press POPULAR twice (to get back to the MAIN menu).

2. Press 4 to select the AUTOPLAY menu. Press 6 to select the AUTOPLAY mode option.

3. Press POPULAR to perform this function. The display will blink when the command is executed.

J. Changing Autoplay Status

Allows you to change the AUTOPLAY STATUS immediately, without waiting for the START or STOP time of day.

1. Press and hold RESET while you press POPULAR twice (to get back to the MAIN menu).

2. Press 4 to select the AUTOPLAY menu. Press 7 to select the AUTOPLAY mode option.

3. Hold RESET then press 9 to toggle the status ON or OFF. Press POPULAR to save the changes.

K. Using Autoplay To Check Volume Setups

1. Enter the SERVICE mode and establish security Level 3.

2. From the * SERVICE MODE * display, type 41 to start at the top of the Autoplay menu.

3. Use RESET+9 to toggle Autoplay ON; press POPULAR.

4. Push RESET+1 once to move to DELAY TIME. Type three zeros and press POPULAR.

5. Press RESET+1 four times to move to program. Be sure there is at least one selection entered in the Autoplay program. If the display shows 00 ---, enter a selection as described in *Section G.*

6. Press RESET+1 twice to move to Autoplay STATUS. Use RESET+9 to toggle APLAY STATUS ON and press POPULAR.

7. Return to the SERVICE mode display, then enter 83 to select the CLEAR SELECTIONS option. Press POPULAR to clear out any remaining selection to be played.

8. Leave the SERVICE mode and Autoplay will play the programmed selection. Remember to reprogram the Autoplay options when finished.

KEY FUNCTIONS

RESET+0 -> Move up 1 line
RESET+1 -> Move down 1 line
RESET+2 -> Move left, decrement
RESET+3 -> Move right, increment
RESET+4 -> Delete
RESET+5 -> Insert
RESET+9 -> Toggle
RESET+POPULAR -> Escape/Backup
POPULAR -> Enter

NOTE: A line beginning with an • is the title of a page. A line ending with -> indicates another page exists.

Ver 1.2b

0- ■ SECURITY ■
0 ENTER CODE ———
1 SECURITY LEVEL —
2 LVL 2 CODE ———
3 LVL 3 CODE ———
4 PHONO ID ———
5 VOID SRVC SV —
6
7
8
9

1- ■ AUDITS ■
0 CASH AUDITS ->
1 PLAY AUDITS ->
2 NON-RESETABLES->
3 CLEAR DISC POP
4 CLEAR CASH
5 CLEAR PLAYS
6 CLEAR SEL POP
7 MP DISC ——•——
8 LP DISC ——•——
9 MP SEL ———

10- ■ CASH AUDITS ■
0 CASH= ———
1 BILL= ———
2 COIN= ———
3 VBOX= ———
4 1 COINS ———
5 2 COINS ———
6 3 COINS ———
7 4 COINS ———
8 1 BILLS ———
9 2 BILLS ———

2- ■ ATTRACT ■
0 ATTRACT MODE ——
1 PAGE MODE —
2 CHANGE TIME —
3 DISPLAY PAGE —
4 PAGE IN - OUT -
5 SPEED ON - SRV -
6
7
8
9

3- ■ INITIALIZE ■
0 FULL INITIALIZE —
1 PROGRAM INIT —
2 DISC — TRACK —
3 CANCEL INIT —
4 INITIALIZED —
5
6 SKIP COUNT —
7 CANCEL TIME —
8 TIME ——:——:——
9 DATE ——/——/——

11- ■ PLAY AUDITS ■
0 FREE CRDTS ———
1 PAID CRDTS ———
2 AUTOPLAYS ———
3 MECH PLAYS ———
4 ALBUM SELS ———
5 MPOP SELS ———
6 NORM SELS ———
7
8
9

4- ■ AUTOPLAY ■
0 AUTOPLAY IS ———
1 DELAY TIME —
2 START TIME ——:——
3 STOP TIME ——:——
4 ON DAYS SMTWTFS
5 PROGRAM —
6 CLEAR PROGRAMMED
7 APLAY STATUS —
8
9

12- ■ NON-RESETABLES ■
0 —CASH ———
1 —BILL ———
2 —COIN ———
3 —VBOX ———
4 FREE ———
5 PAID ———
6 MPOP ———
7 MECH ———
8 ALBUM ———
9 SELS ———

- ■ SERVICE MODE ■
0 SECURITY ->
1 AUDITS ->
2 ATTRACT ->
3 INITIALIZE ->
4 AUTOPLAY ->
5 PRICING ->
6 OPTIONS ->
7 REPORTS ->
8 STATUS ->
9 FM REMOTE ->

6- ■ OPTIONS ■
0 LOCKOUTS —— —
1 PRIORITY —— —
2 PREMIUMS —— —
3 KEEP CREDIT ——
4 KEEP MONEY ———
5 ALBUM SELECT ——
6 PRIORITY PLY ——
7 TRYS IN A ROW —
8 4 HOUR CLEAR ——
9 MORE OPTIONS ->

5- ■ PRICING ■
0 COIN SV VALUES->
1 PRICE LEVELS ->
2 PLAYS @ LEVEL ->
3 MULTIPLIER —
4 TIMED FPLAY —
5 FPLAY STATUS —
6 START TIME ——:——
7 STOP TIME ——:——
8 ON DAYS SMTWTFS
9 DEFAULT PRICING

50- ■ COIN SV VALUES ■
0
1 COIN SW 1 ———
2 COIN SW 2 ———
3 COIN SW 3 ———
4 COIN SW 4 ———
5 BILL 1 ———
6 BILL 2 ———
7
8
9

7- ■ REPORTS ■
0 CASH REPORT
1 PLAY REPORT
2 POPULAR REPORT
3 NON RESET REPORT
4 ALL AUDIT REPORT
5 SET UP REPORT
6 ERR HIST REPORT
7 DISC COND REPORT
8 BAUD RATE ———
9 CANCEL REPORTS

69- ■ MORE OPTIONS ■
0 PAID PLAY ———
1 FREE PLAY ———
2 CLEAR TIME ———
3
4
5
6
7
8
9

51- ■ PRICE LEVELS ■
0
1 LVL 1 PRICE ——
2 LVL 2 PRICE ——
3 LVL 3 PRICE ——
4 LVL 4 PRICE ——
5 LVL 5 PRICE ——
6
7
8
9

9- ■ FM REMOTE ■
0
1
2
3
4
5
6
7
8
9

8- ■ STATUS ■
0 ERROR HISTORY
1 CLEAR ERRORS
2 CLEAR CREDITS
3 CLEAR SELECTIONS
4 CREDITS ———
5 SELS LEFT ———
6 DISC CONDITIONS
7 CLEAR CONDITIONS
8 VERSIONS
9

52- ■ PLAYS @ LEVEL ■
0
1 LVL 1 PLAYS ———
2 LVL 2 PLAYS ———
3 LVL 3 PLAYS ———
4 LVL 4 PLAYS ———
5 LVL 5 PLAYS ———
6
7
8
9

Service Mode Map

L. Cancelling Autoplay

Allows you to select whether or not a paid selection will cancel an Autoplay selection that is already playing.

1. Enter the SERVICE mode by setting the SERVICE switch to the SERVICE position.

2. Type 0 to select the SECURITY menu. Type 0 again to select the CODE ENTRY function. Enter the 4-digit Level 3 security code and then press POPULAR.

3. Press and hold RESET while you press POPULAR twice (to get back to the MAIN menu).

4. Press 6 to select the OPTIONS menu, press 9 to select the MORE OPTIONS mode, and then press 5 to select the CANCEL APLAY mode.

5. Press and hold RESET then press 9. This will toggle the CANCEL APLAY mode between ON and OFF. Press POPULAR to select the option when it is displayed the way you want it.

PART IV: SPEAKER/AMPLIFIER INSTALLATION

This group of instructions is comprised of two parts. The two parts are mutually exclusive, so if you do one part, you cannot do the other.

Two Amplifier Systems

Follow this set of instructions if you have two amplifiers that you wish to switch to one speaker system.

Two Speaker Systems

Follow this set of instructions if you have one amplifier and want separate speakers for selections and Background music (BGM).

STEP-BY-STEP INSTRUCTIONS

Be sure that you have completed *Part I, Circuit Board Installation* before you begin these instructions.

Since speakers are installed in a variety of types of locations, we refer to speaker installations in different areas simply as Room #1 or Room #2. R1 on the volume control board controls Room #1 and R2 controls Room #2.
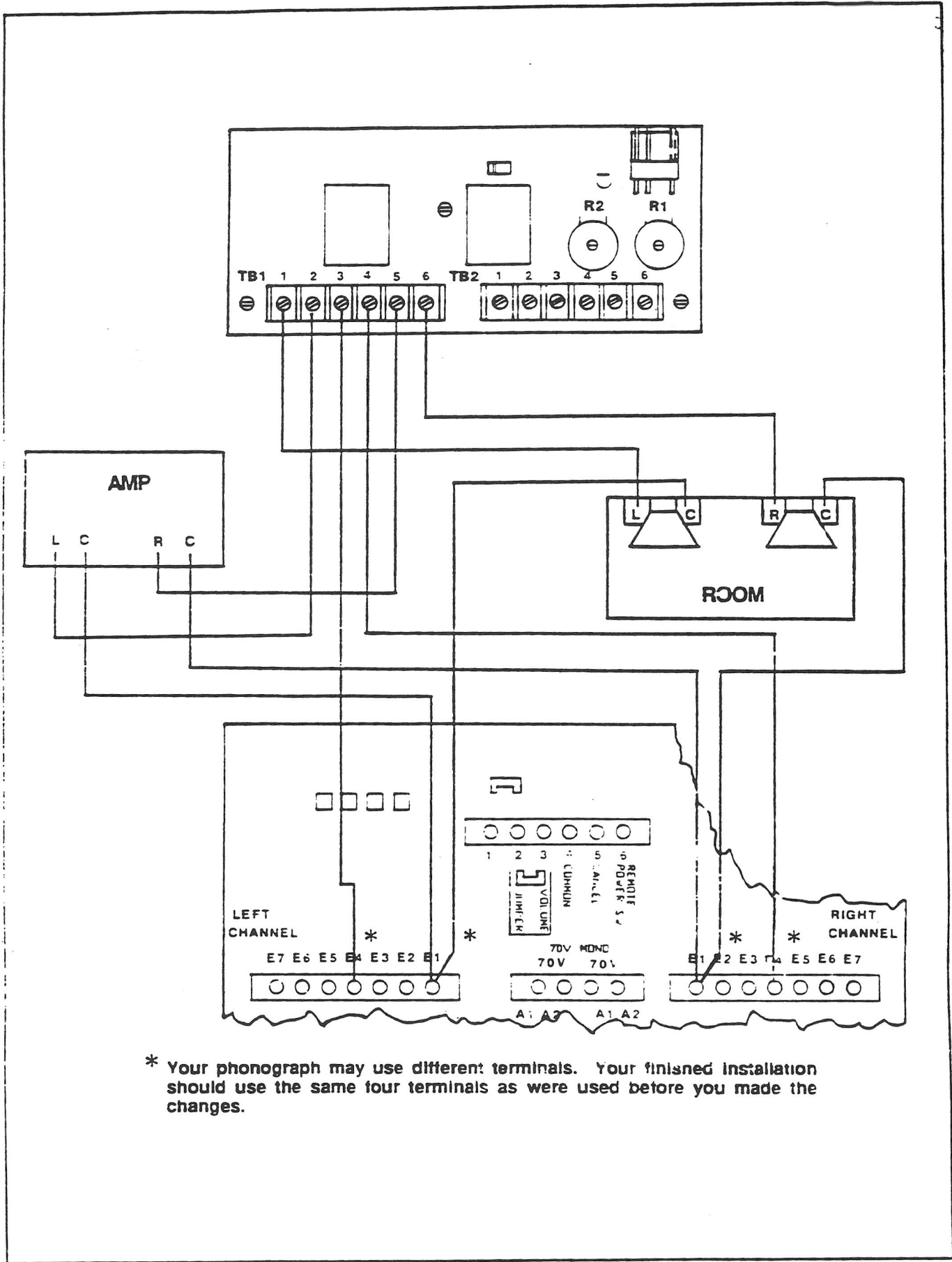
A. TWO AMPLIFIERS FEEDING ONE SPEAKER SYSTEM

Normal Play: PHONOGRAPH speakers and the ROOM speakers for customer selected music

Back Ground Music: EXTERNAL AMPLIFIER plays through the ROOM speakers anytime the phonograph is not playing customer selections

For this option to work properly, both the phonograph amplifier and the external amplifier must have an impedance which matches the speaker system. This means that if you have a 70-volt speaker system, both the external amp and the phonograph must be wired to supply a 70-volt signal. If you are using a low impedance speaker system (4, 8 ohms, or wallboxes), then both the external amp and the phonograph must wired to supply a low impedance signal.

1. Place the EXTERNAL AMPLIFIER in a convenient location and make all power and signal connections, except for speaker connections, in accordance with the amplifier's installation instructions.

2. Run two pairs of speaker wires (LEFT CHANNEL, RIGHT CHANNEL, and two COMMON wires) between the EXTERNAL AMPLIFIER and the phonograph.

3. Connect the speaker wires to the EXTERNAL AMPLIFIER speaker terminals.

4. Make a note of the LEFT and RIGHT CHANNEL speaker connections that are already made on the SPEAKER TERMINAL STRIP. Connect the EXTERNAL AMPLIFIER LEFT COMMON speaker wire to the PHONOGRAPH LEFT COMMON connection (this is usually the *Left E1*).

5. Connect the EXTERNAL AMPLIFIER RIGHT COMMON speaker wire to the PHONOGRAPH RIGHT COMMON connection (this is usually the *Right E1*).

6. Connect the EXTERNAL AMPLIFIER LEFT CHANNEL speaker wire to *TB1, Terminal 2*.

7. Connect the EXTERNAL AMPLIFIER RIGHT CHANNEL speaker wire to *TB1, Terminal 4*.

8. Disconnect the EXTENSION SPEAKER LEFT CHANNEL wire(s) from the LEFT CHANNEL SPEAKER TERMINAL STRIP and move the wire(s) to *TB1, Terminal 1*.

9. Connect a single speaker wire (you may use any unused wire in the VOLUME CONTROL HARNESS for these connections) from the LEFT CHANNEL speaker strip terminal that was vacated in the previous step. Connect the free end of this wire to *TB1, Terminal 3*.

10. Disconnect the EXTENSION SPEAKER RIGHT CHANNEL wire(s) from the RIGHT CHANNEL speaker strip and move the wire(s) to *TB1, Terminal 6*.

11. Connect a single speaker wire (you may use any unused wire in the VOLUME CONTROL HARNESS for these connections) from the RIGHT CHANNEL SPEAKER TERMINAL STRIP that was vacated in the previous step. Connect the free end of this wire to *TB1, Terminal 4*.

12. Plug in the phonograph, turn it on, and make a selection. The selection should play in all speakers.

13. Press the CANCEL button on the phonograph and, after approximately 10 seconds, the EXTERNAL AMPLIFIER will play through the ROOM speakers.

14. Set the EXTERNAL AMPLIFIER volume control to the desired BGM level.

TB1 1 2 3 4 5 6   TB2 1 2 3 4 5 6

R2 R1

AMP

L C   R C

L C   R C

ROOM

LEFT CHANNEL

E7 E6 E5 E4 E3 E2 E1

RIGHT CHANNEL

E1 E2 E3 E4 E5 E6 E7

1 2 3 4 5 6 REMOTE POWER SW

JUMPER VOLUME

COMMON

70V MONO
70V 70V

A1 A3 A1 A2

* Your phonograph may use different terminals. Your finished installation should use the same four terminals as were used before you made the changes.

Two Amplifiers Feeding One Speaker System

B. One Amplifier Feeding Two Speaker Systems

Normal Play: Phonograph speakers only play
Autoplay: Extension speakers only play

1. Open the top door and make sure that VOLUME CONTROL JUMPER is connected between *Terminals 2 and 3* of the VOLUME CONTROL STRIP.

2. Make a note of the LEFT and RIGHT CHANNEL speaker connections that are already made on the SPEAKER TERMINAL STRIP.

Three wires (Violet, Pink, and Black) connect the phonograph speakers to the SPEAKER TERMINAL STRIP. The *Violet* and *Pink* wires are moved in the following 4 steps:

3. Disconnect the *Violet* speaker wire from the LEFT SPEAKER TERMINAL STRIP.

4. Connect the *Violet* wire to the volume control circuit board *TB-1, Terminal 3*.

5. Disconnect the *Pink* speaker wire from the RIGHT SPEAKER TERMINAL STRIP.

6. Connect the *Pink* wire to the volume control circuit board *TB-1, Terminal 4*.

7. Make sure that the *Black* wire is connected to the LEFT SPEAKER TERMINAL STRIP. If the *Black* wire is connected to the RIGHT SPEAKER TERMINAL STRIP, move it to the corresponding terminal on the LEFT SPEAKER TERMINAL STRIP.

8. If the EXTENSION SPEAKERS are connected to the phonograph at this time, disconnect them from the phonograph.

9. Connect the LEFT CHANNEL EXTENSION SPEAKER wire to *TB1, Terminal 1*.

10. Connect the RIGHT CHANNEL EXTENSION SPEAKER wire to *TB1, Terminal 6*.

11. Connect the LEFT CHANNEL EXTERNAL SPEAKER wire to *TB1, Terminal 2*.

12. Connect the RIGHT CHANNEL EXTENSION SPEAKER wire to *TB1, Terminal 4*.

13. This step is not required unless you have rewired or added to your speaker system.

    Look at the LEFT SPEAKER TERMINAL STRIP and make a mental note of the terminal number that the *Black* wire to the phonograph speakers is on (you checked this in step 7).

    Look at the RIGHT SPEAKER TERMINAL STRIP and find the same terminal number. Connect the EXTENSION SPEAKER COMMON wire(s) for both the LEFT EXTENSION SPEAKERS and the RIGHT EXTENSION SPEAKERS to this terminal.

14. Plug in the phonograph, turn it on, and make a selection. The selected music should play on the phonograph only.

15. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

16. The Autoplay selection should play in the other room only. Plug P15 back into the central control computer.

17. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III*.
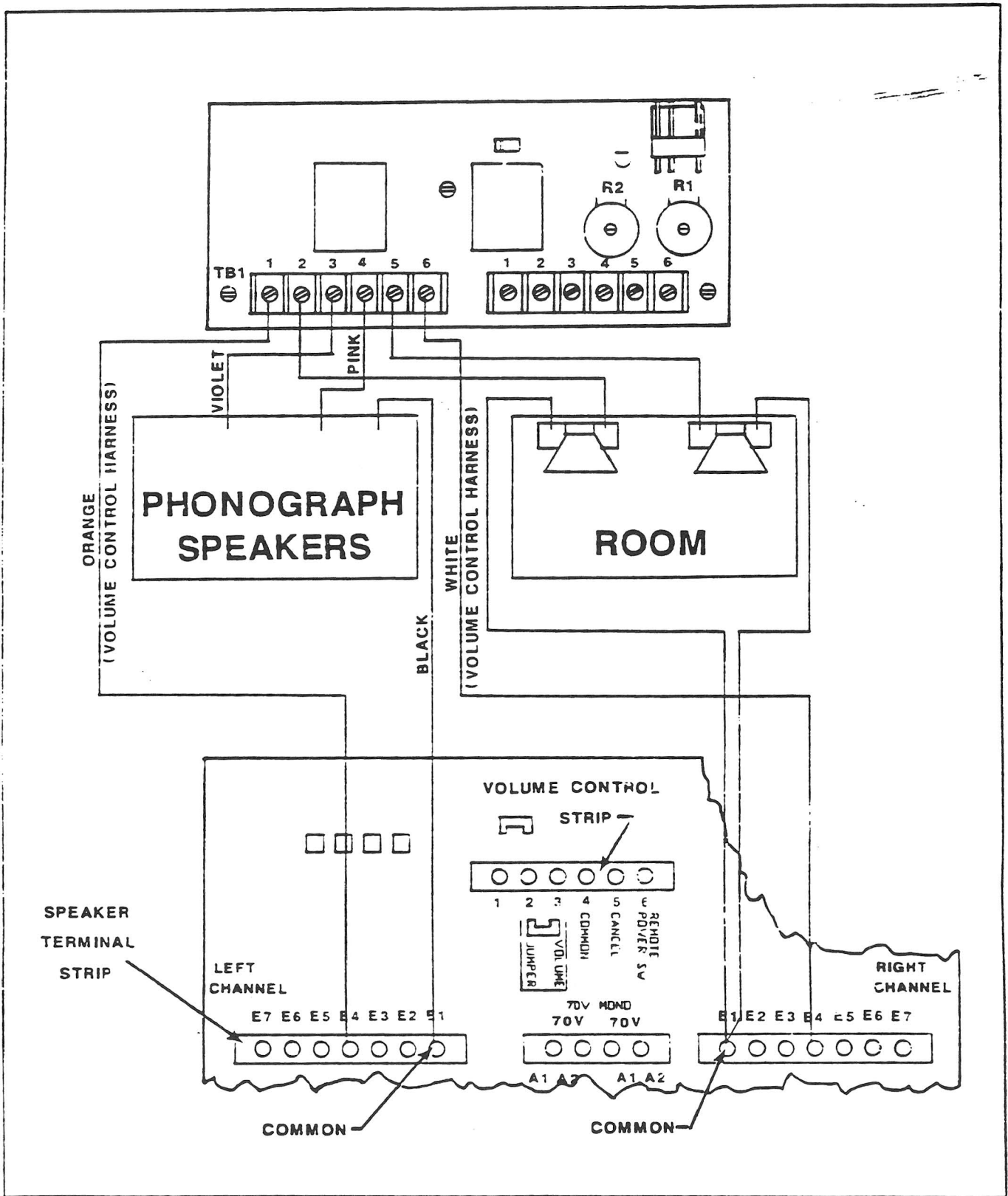
One Amplifier Feeding Two Speaker Systems

C. One Amplifier Feeding Two Speaker Systems

Normal Play: Extension speakers play in Room #1 only
Autoplay: Extension speakers play in Room #2 only

☑ **NOTE:**

The Phonograph Speakers Do Not Play At Any Time

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1. Open the top door and make sure that VOLUME CONTROL JUMPER is connected between *Terminals 2 and 3* of the VOLUME CONTROL STRIP.

2. Make a note of the LEFT and RIGHT CHANNEL speaker connections that are already made on the SPEAKER TERMINAL STRIP.

3. If Rooms #1 and #2 are not already wired, wire them now. Make sure that the wires from Room #1 and from Room #2 are not connected to each other.

   If Rooms #1 and #2 are already wired, make sure that the wires to the two rooms are not connected to each other.

In the next three steps, the three wires *(Violet, Pink, and Black)* that connect the phonograph speakers to the SPEAKER TERMINAL STRIP will be disconnected and will not be used.

3. Disconnect the *Violet* speaker wire from the LEFT SPEAKER TERMINAL STRIP and cover the spade lug with electrical tape so that the lug will not short to anything.

4. Disconnect the *Pink* speaker wire from the RIGHT SPEAKER TERMINAL STRIP and cover the spade lug with electrical tape so that the lug will not short to anything.

5. Disconnect the *Black* speaker wire from the LEFT SPEAKER TERMINAL STRIP[6] and cover the spade lug with electrical tape so that the lug will not short to anything.

6. If the EXTENSION SPEAKERS are connected to the phonograph at this time, disconnect them from the phonograph.

7. Locate the speaker wires to Room #1 and connect the LEFT CHANNEL EXTENSION SPEAKER wire to *TB1, Terminal 3.*

8. Connect the RIGHT CHANNEL EXTENSION SPEAKER wire for Room #1 to *TB1, Terminal 4* (the COMMON wires will be connected later).

9. Locate the speaker wires to Room #2 and connect the LEFT CHANNEL EXTERNAL SPEAKER wire to *TB1, Terminal 2.*

10. Connect the RIGHT CHANNEL EXTENSION SPEAKER wire for Room #2 to *TB1, Terminal 5* (the COMMON wires will be connected later).

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[6]These connections are shown on E1 as an example. Your phonograph may use other terminals

The next two steps assume that you have not already used the *Orange* and *White* wires in the VOLUME CONTROL HARNESS. If you are already using these wires, use a piece of speaker wire in the place of the *Orange* and *White* wires.

11. Connect one end the *Orange* wire in the VOLUME CONTROL HARNESS to the VOLUME CONTROL CIRCUIT BOARD *TB-1, Terminal 1*. Connect the other end of the *Orange* wire in the following way:

    If the EXTENSION SPEAKERS are newly installed, connect the free end of the *Orange* wire to the LEFT SPEAKER TERMINAL STRIP that supplies the power that you wish to use.

Terminal To Use	Power (Watts)
E2	1
E3	4
E4	16
E5	28
E6	64
E7	113

    If the EXTENSION SPEAKERS have been used with this phonograph, connect the *Orange* wire to the same LEFT SPEAKER TERMINAL STRIP terminal number (E1 through E7) as was used for the EXTENSION SPEAKER LEFT CHANNEL before.

12. Connect one end the *White* wire in the VOLUME CONTROL HARNESS to the VOLUME CONTROL CIRCUIT BOARD *TB-1, Terminal 6*. Connect the other end of the *White* wire in the following way:

    If the EXTENSION SPEAKERS are newly installed, connect the free end of the *White* wire to the RIGHT SPEAKER TERMINAL STRIP with the same terminal number (E1 through E7) as the *Orange* wire that is connected to the left speaker terminal strip.

    If the EXTENSION SPEAKERS have been used with this phonograph, connect the *White* wire to the same RIGHT SPEAKER TERMINAL STRIP terminal number (E1 through E7) as was used for the EXTENSION SPEAKER LEFT CHANNEL before.

13. Connect both of the EXTENSION SPEAKER COMMON' wires for Room #1 to the LEFT SPEAKER TERMINAL STRIP in one of the following ways:

    If the EXTENSION SPEAKERS are newly installed, connect the EXTENSION SPEAKER COMMON wires to the LEFT SPEAKER TERMINAL STRIP E1.

    If the EXTENSION SPEAKERS have been used with this phonograph, connect the EXTENSION SPEAKER COMMON wires to the same RIGHT SPEAKER TERMINAL STRIP terminal number (E1 through E7) as before (Even if the COMMON wires were connected to the right speaker terminal strip, connect them to the LEFT SPEAKER TERMINAL STRIP now).

14. Connect both of the EXTENSION SPEAKER COMMON' wires for Room #1 to the RIGHT SPEAKER TERMINAL STRIP in one of the following ways:

    If the EXTENSION SPEAKERS are newly installed, connect the EXTENSION SPEAKER COMMON wires to the RIGHT SPEAKER TERMINAL STRIP E1.

'These connections are shown on E1 as an example. Your phonograph may use other terminals

If the EXTENSION SPEAKERS have been used with this phonograph, connect the EXTENSION SPEAKER COMMON wires to the same RIGHT SPEAKER TERMINAL STRIP terminal number (E1 through E7) as before (Even if the COMMON wires were connected to the left speaker terminal strip, connect them to the RIGHT SPEAKER TERMINAL STRIP now).

15. Connect both of the EXTENSION SPEAKER COMMON[a] wires for Room #2 to the LEFT SPEAKER TERMINAL STRIP in one of the following ways:

> If the EXTENSION SPEAKERS are newly installed, connect the EXTENSION SPEAKER COMMON wires to the LEFT SPEAKER TERMINAL STRIP E1.

> If the EXTENSION SPEAKERS have been used with this phonograph, connect the EXTENSION SPEAKER COMMON wires to the same RIGHT SPEAKER TERMINAL STRIP terminal number (E1 through E7) as before (Even if the COMMON wires were connected to the right speaker terminal strip, connect them to the LEFT SPEAKER TERMINAL STRIP now).

16. Connect both of the EXTENSION SPEAKER COMMON[a] wires for Room #2 to the RIGHT SPEAKER TERMINAL STRIP in one of the following ways:

> If the EXTENSION SPEAKERS are newly installed, connect the EXTENSION SPEAKER COMMON wires to the RIGHT SPEAKER TERMINAL STRIP E1.

> If the EXTENSION SPEAKERS have been used with this phonograph, connect the EXTENSION SPEAKER COMMON wires to the same RIGHT SPEAKER TERMINAL STRIP terminal number (E1 through E7) as before (Even if the COMMON wires were connected to the left speaker terminal strip, connect them to the right speaker terminal strip now).

17. Plug in the phonograph, turn it on, and make a selection. The selected music should play in Room #1 only.

18. Unplug P15 from the central control computer (this is the connector that you inserted the *White* wire into). The volume control circuit board will switch into Autoplay mode (the phonograph display will go blank because P15 is disconnected).

19. The Autoplay selection should play in Room #2 only. Plug P15 back into the central control computer.

20. If you wish to change the Autoplay schedule or Autoplay selections, turn to *Part III*.

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[a]These connections are shown on E1 as an example. Your phonograph may use other terminals
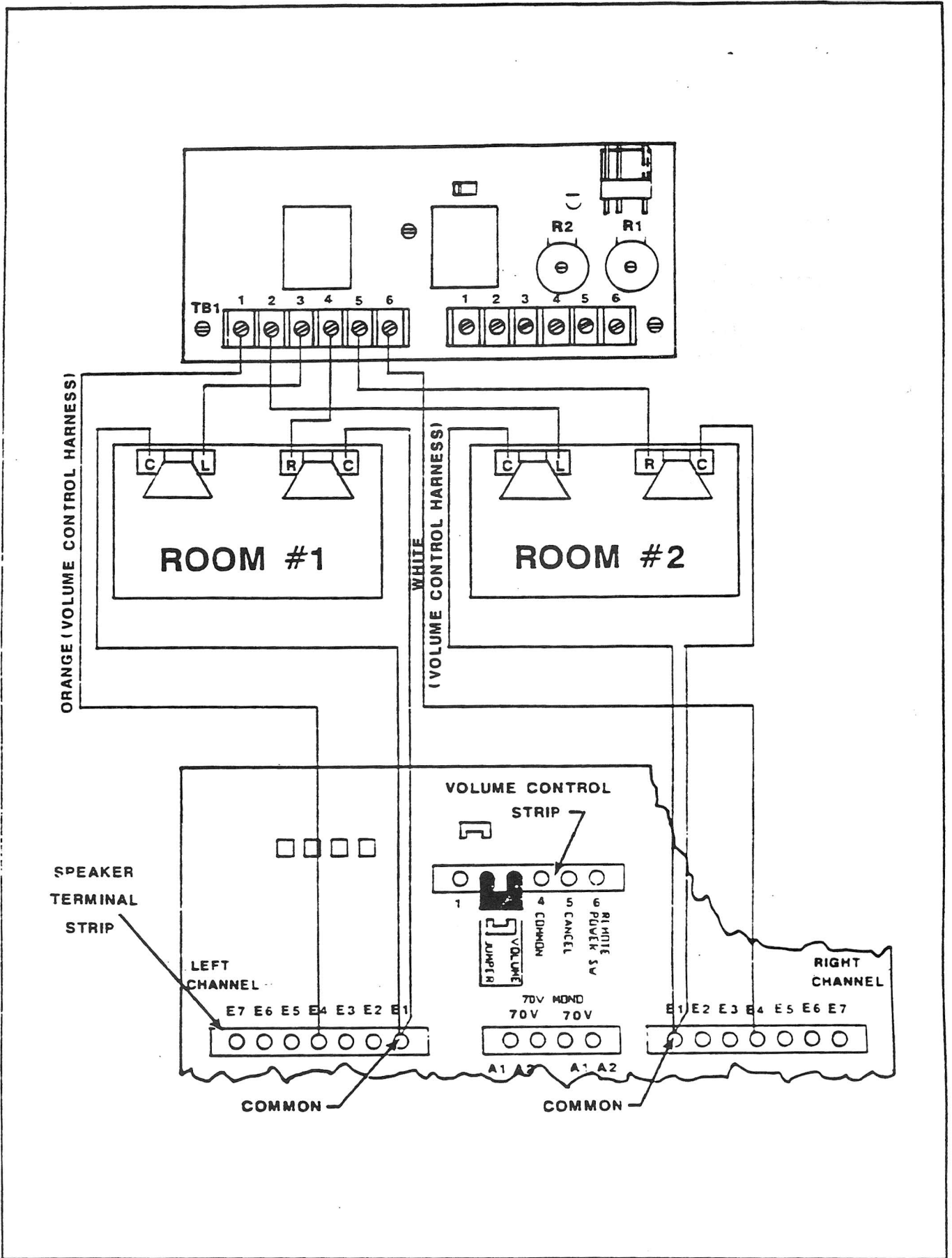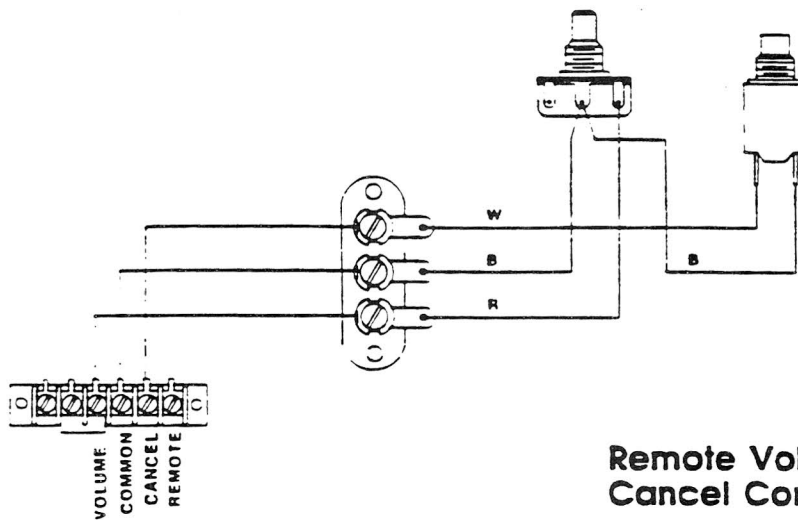
One Amplifier Feeding Two Speaker Systems

V. SERVICE INFORMATION
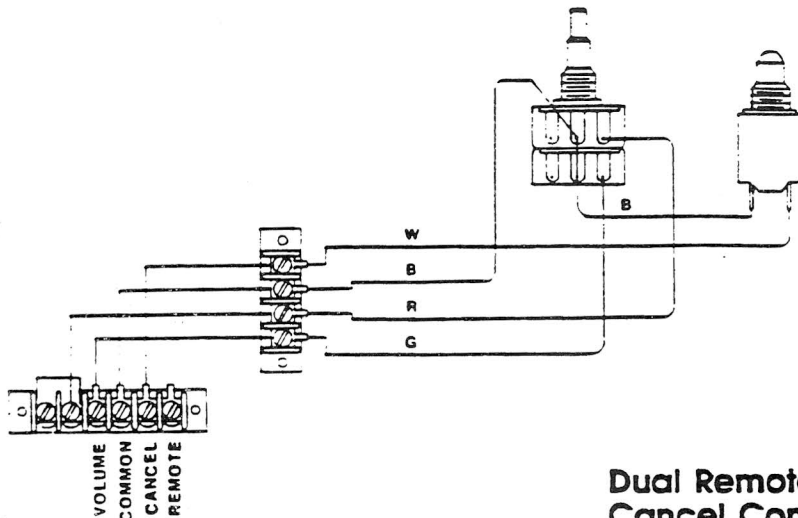
**Dual Remote Volume &
Cancel Control 30632209**

**Remote Volume &
Cancel Control 30632201**

Remote Volume Control Schematics

THEORY OF OPERATION

Introduction

This circuit board switches volume controls, speakers, or amplifiers when the phonograph has no more customer selections to play.

Both K1 and K2 connect one set of wires during customer selections (Normal Play) and another set of wires during Autoplay.

During Normal Play, the Normal Play connections are made and Autoplay connections are disconnected.

During Autoplay, the Autoplay connections are made and the Normal Play connections are disconnected.

## Transistor Q1 And Relay Coils

Approximately 10 seconds after the last customer selection plays, the central control computer sends a signal to the volume control circuit board. This signal turns Q1 on and current flows through the coils of both K1 and K2. Relays K1 and K2 "pull in". As the relays pull in, the contacts move and the new circuit connections are made. These connections are shown with dotted lines on the schematic diagram. Note that all four sets of contacts change position at the same time.

K1 (Power Switching Relay)

The power switching relay, K1, can be used to switch the output from one amplifier to two different speaker systems. K1 can also be used to switch two amplifiers to one speaker system.

K2 (Volume Control Switching Relay)

The volume control switching relay, K2, can be used to switch the various available volume controls to the phonograph. K2 should not be used to switch speakers or amplifiers because of its limited power handling capability.

Circuit Board Schematic
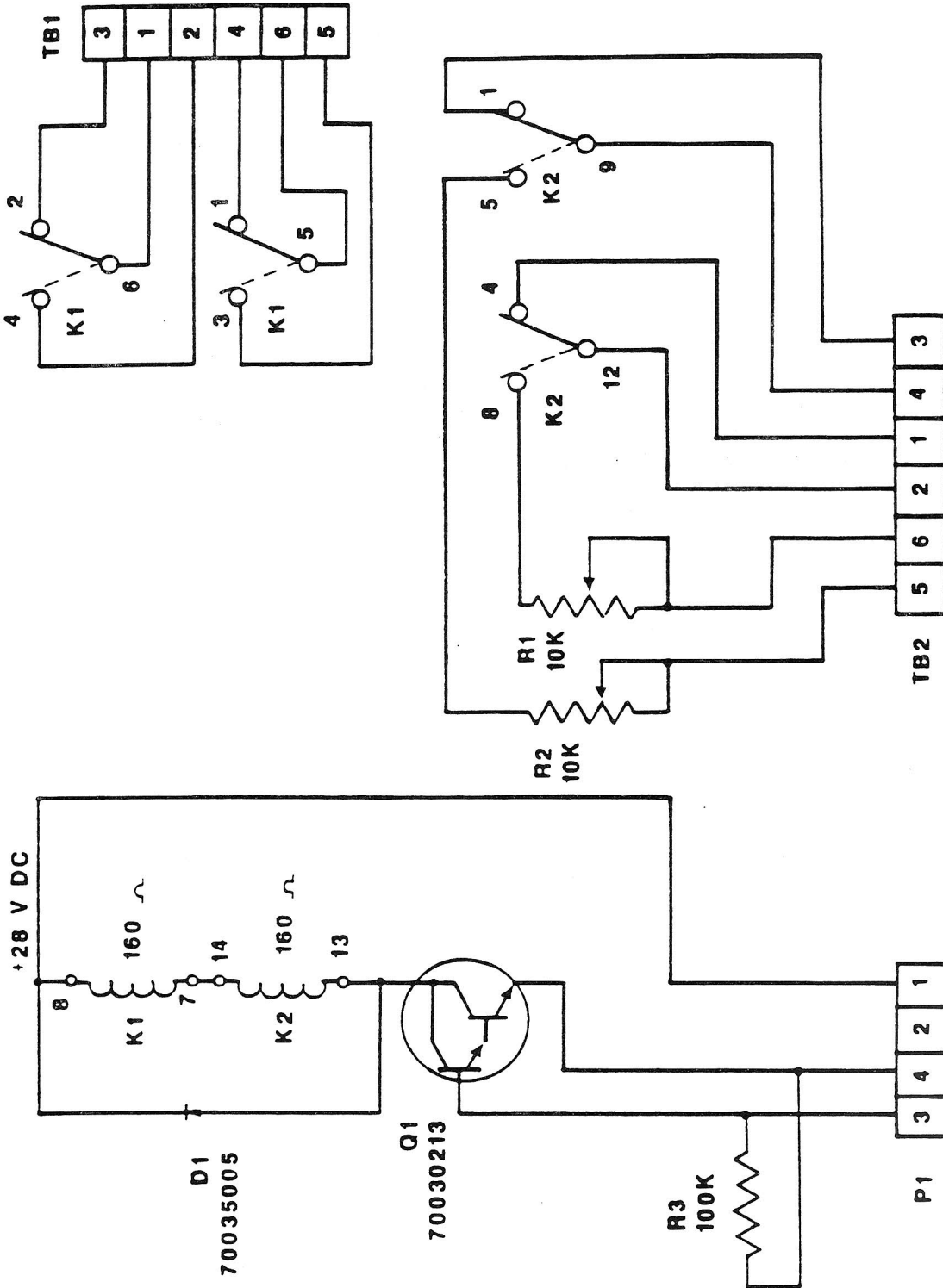
RELAYS SHOWN IN NORMAL PLAY MODE