⠿⠿ARION
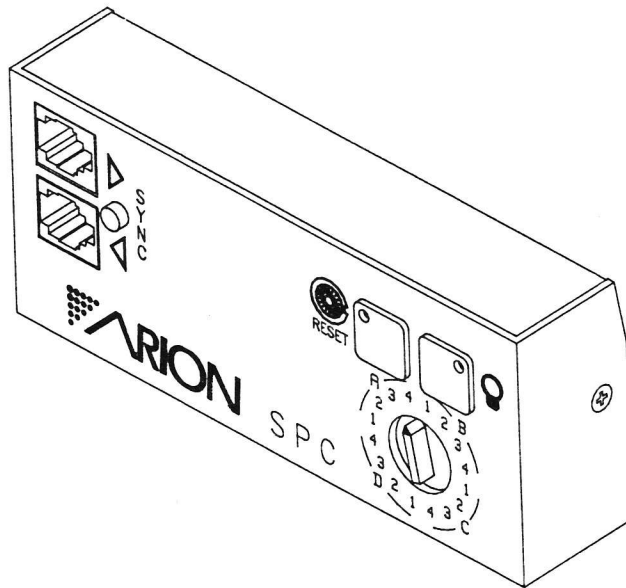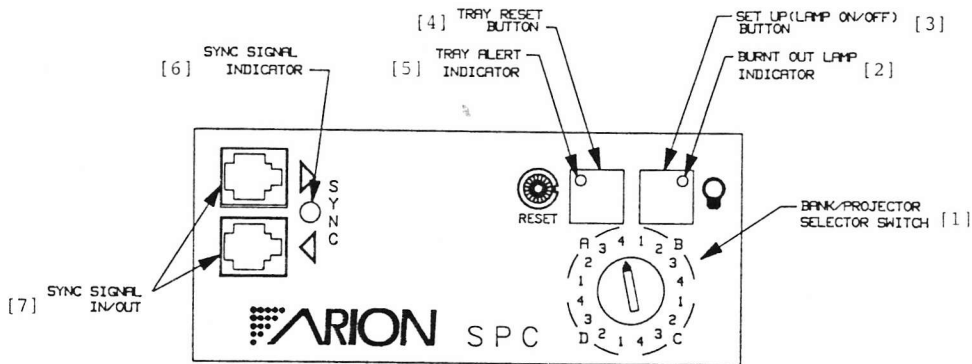
SINGLE PROJECTOR CONTROLLER
FOR
KODAK EKTAGRAPHIC III PROJECTORS

CONTROLS AND INDICATORS

1. **BANK AND PROJECTOR NUMBER** selects the bank and projector number setting.

2. **LAMP ALERT INDICATOR** - flashes for a burned-out lamp and when the projectors power-selector switch is mistakenly set to high instead of fan position.

3. **SETUP** - turns on and off the projector lamp for alignment and focusing when the SPC is not receiving Mate-Trac sync signal.

4. **RESET** - finds tray position 1 when the SPC is not receiving Mate-Trac. While the SPC receives Mate-Trac, reset is disabled except when a possible tray problem lights the tray alert indicator. Then reset takes the tray to its correct position.

5. **TRAY ALERT INDICATOR** lights steadily when the SPC tray position may be wrong because the tray has been moved by hand or is jammed. It also lights when the SPC is powered up while receiving Mate-Trac. It goes out as soon as the SPC gets tray position 1 from the Mate-Trac sync signal.

   TRAY ALERT INDICATOR flashes when the SPC tries to cycle a missing or poorly seated tray.

6. **SYNC** - lights while SPC receives a good Mate-Trac sync signal.

7. **< OUT** modular telephone jack - output for Mate-Trac sync signal.
   > IN modular telephone jack - input for Mate-Trac sync signal.

ARION PROGRAMMER COMPATIBILITY

The SPC plays back shows programmed on the Arion Two Plus, Design Sixteen, 828 Memory Programmer, CAMI, and Kodak Ektagraphic Programmable Dissolve Controls.

When using the SPC intermixed with the TWO PLUS, FOUR PLUS, EXPRESS TWO or FOUR, 828 or Kodak Programmable Dissolve Controls, be sure to follow the hook-up instructions found on page 6.

AVL PROGRAMMER COMPATIBILITY

The SPC - working with the Arion Converter - can be programmed using the AVL Show Pro 3, Show Pro V, and programmers using AVL Procall Versions 5 through X. The Arion Converter, catalog number 320, receives AVL Posi-Trak and sends out an enhanced Mate-Trac sync signal to the SPC. The SPC emulates AVL Dove fade curves and projector effects.

Once the enhanced Mate-Trac is recorded on the sync track, the SPC will reliably playback your show without AVL programmer or Arion Converter.

CABLING: SPC-TO-SPC

Modular-to-modular line cords link SPCs together. They also link the Arion Producer cassette recorder to the SPC through the Producer's balanced sync out. These cables have 4 conductors, terminating in 6 posibion 4 contact RJ14C squeeze tab connectors. Computer modems, peripherals, and the U.S. telephone system use these cords.
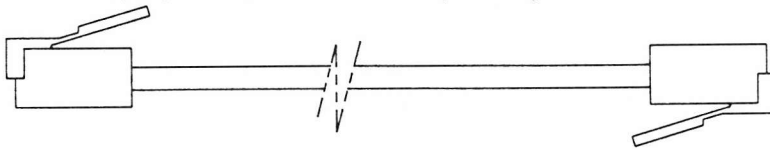
Cords are available from your Arion dealer and Radio Shack/Tandy stores. Radio Shack catalog number: 279-374 (12 ft/3.7 m), 279-390 (5 ft/1.5m).

CABLING: MATE-TRAC SOURCE-TO-SPC

A special cable may be needed to connect your Mate-Trac source - such as a tape player or programmer - to the first SPC. This cable will have a standard audio plug on one end and a 6 position 4 contact RJ14C connector on the other end. Buy audio plugs at an electronics or Radio Shack/Tandy store.

RED

GREEN
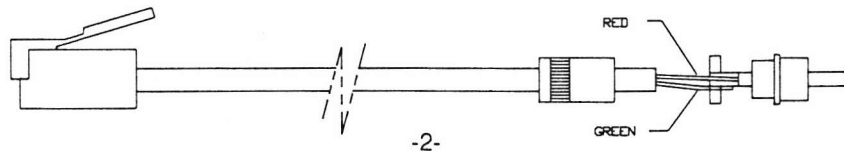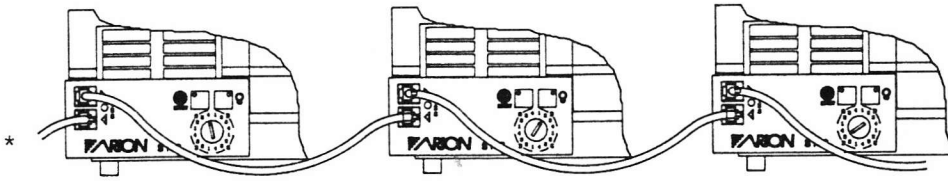
SETUP

Setup with projector switch in the off position.

If using a programmer, put it into standby. SPCs receiving home position Mate-Trac always return their trays to tray start position 1 or 0.

1. Plug SPC into the 2 receptacles located on the back of the EK III just below the fan grill. Align the SPC 7 pin and 8 pin connectors with the remote-accessory and secial-application receptacles at the rear of the projector. Press the SPC firmly against the projector.

2. Set the rotary switch on the SPC to the proper projector assignment.

3. Plug the modular end of the Mate-Trac source-to-SPC cable into the Mate-Trac in jack on the first SPC. Plug the other cable end into the Mate-Trac source. Connect remaining SPCs using modular-to-modular cables. Connect cable from the Mate-Trac out jack of one SPC to the Mate-Trac in jack of the next SPC.

4. Place trays on projectors.

5. Switch the projector switch to the fan position.

> SPCs will forward their trays to start position 1 or 0.

6. Press projector forward or reverse buttons as needed to drop alignment slides into gates. Press the setup button to turn the projector lamp on/off when focusing and aligning the projector.

> SPC tray alert indicator will light when trays are moved by hand.

7. *After setup is complete, connect the cable from either your tape recorder or your programmer to the first SPC. (TD power control if one is in your setup.)

8. Press reset key to send trays to the start position of the show.

If using a programmer, turn Mate-Trac back on.

Projectors are ready when all SPC lamp and tray alert indicators are off.

9. Play show.

ZERO POSITION SENSING FOR POSITIVE TRAY SYNCHRONIZATION

The SPC uses the Kodak Ektagraphic III's zero-position switch to positively find correct tray positions. Whenever the SPC powers up without Mate-Trac sync signal or receives the tray start position from the Mate-Trac sync signal, it cycles its tray until the tray will seek its start position.

Important: Do NOT use 140 slide trays!

TRAY ALERT INDICATOR AND RESET BUTTON

The tray alert indicator lights steadily whenever projector forward and reverse buttons have been activated to change the tray position. It also lights when the tray jams. It lights when SPC powers up while receiving Mate-Trac sync signal and stays lit until the SPC receives its tray start position from the Mate-Trac sync signal. The tray alert flashes when there is a missing or poorly seated tray.

Pressing the Reset button sends the tray to its start position when the SPC is not receiving Mate-Trac sync signal.

While receiving Mate-Trac sync signal the Reset button is disabled - except when the tray alert indicator is lit, indicating tray problems. Pressing the Reset button will cycle the tray until the 0 tray position is sensed, then the tray will cycle to where Mate-Trac sync signal says it belongs.

Reset Button

Tray Alert Indicator
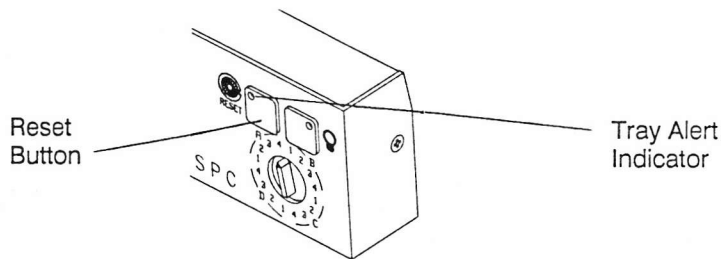
RESTORING SYNCHRONIZATION

1. If the SPC tray alert indicator is on, there are two ways to restore the tray into sync.

   a. If you know the show, cycle the tray (using the projector forward or reverse buttons) to the right position and let the show finish with the alert light on.

   b. Press the tray Reset button, the tray will go to the zero position and then to the proper position per the Mate-Trac sync signal,. This may take longer to get back into sync.

2. During a show, if power is lost to the projector only: after power is restored, the SPC tray alert indicator will be lit. Since the tape recorder did not lose its power and continued to play, some of the sync signals were lost by the SPCs. To restore synchronization of the show:

   a. Stop the tape.

   b. Press the tray Reset button.

   c. While trays are cycling, play a short portion of the tape and stop the tape.

   d. After the trays have gone to the zero-position, the trays will then seek their proper positions per the Mate-Trac sync signal.

   e. Once all trays have stopped cycling, continue to play the tape.

3. If power is lost to both the projectors and the tape player:

   a. The show is likely to be in sync when the projector power is restored.

   b. Since losing power stops the tape player, it is necessary to start the tape.

   c. If not in sync, manually reset the few trays and continue with tray alert lights on.

Reset Button — .... — Tray Alert Indicator
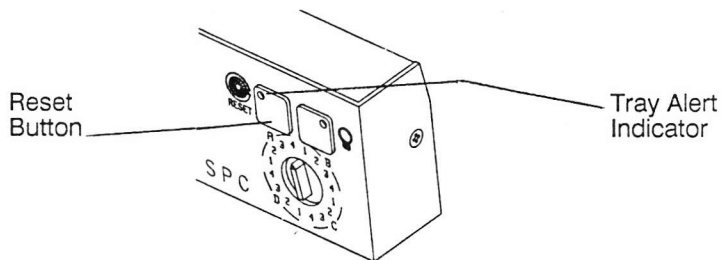
PRINCIPLE OF OPERATION

If SPC is receiving Mate-Trac sync signal:

1. The tray Reset button is disabled unless power is lost. When projector power is turned off, turning on the power to the projector will cause the tray alert light to come on and the trays remain in their current position.

2. Whenever the tray LED is lit, pressing the tray reset button causes the trays to seek zero.
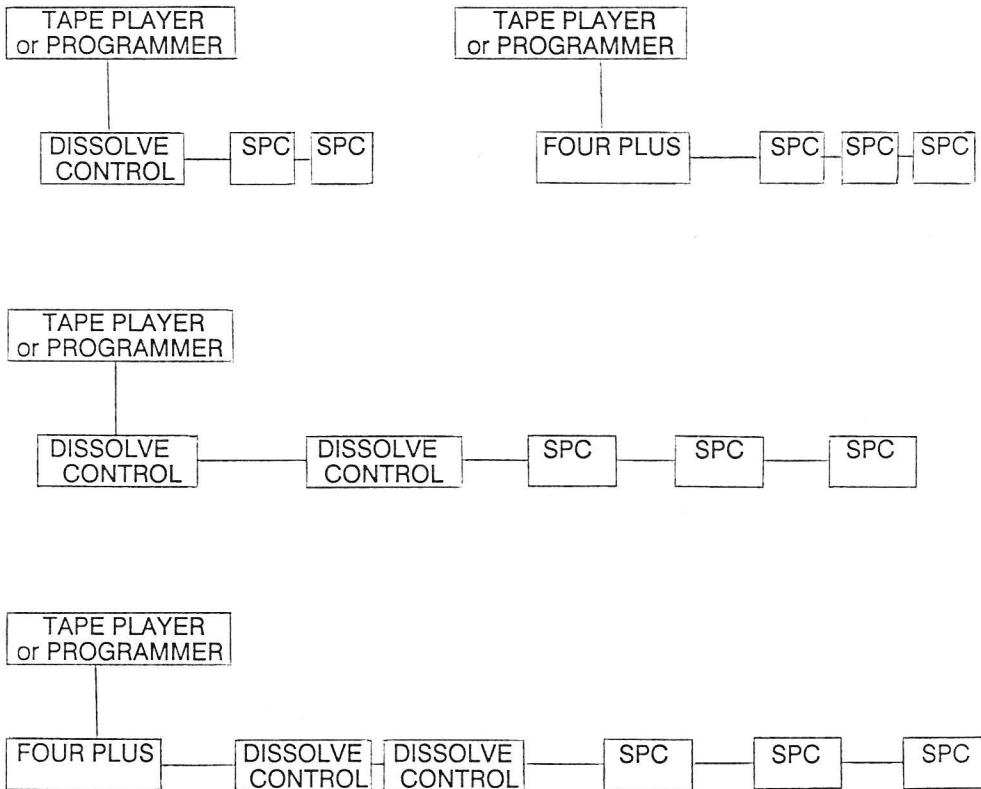
If SPC is **not** receiving Mate-Trac sync signal when projector power is lost:

1. When projector power is restored, the trays will automatically seek the zero position.

HOOK UP

Mixed models of dissolve controls

When using Arion, Kodak, or 3M dissolve controls with the SPC single projector controls, all models must be connected together as in the following examples:

```
┌─────────────────┐                    ┌─────────────────┐
│  TAPE PLAYER    │                    │  TAPE PLAYER    │
│ or PROGRAMMER   │                    │ or PROGRAMMER   │
└────────┬────────┘                    └────────┬────────┘
         │                                      │
┌────────┴────┐  ┌─────┐ ┌─────┐    ┌──────────┴──┐  ┌─────┐┌─────┐┌─────┐
│ DISSOLVE    ├──┤ SPC ├─┤ SPC │    │  FOUR PLUS  ├──┤ SPC ├┤ SPC ├┤ SPC │
│ CONTROL     │  └─────┘ └─────┘    └─────────────┘  └─────┘└─────┘└─────┘
└─────────────┘
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┌─────────────────┐
│  TAPE PLAYER    │
│ or PROGRAMMER   │
└────────┬────────┘
         │
┌────────┴────┐    ┌──────────┐    ┌─────┐    ┌─────┐    ┌─────┐
│ DISSOLVE    ├────┤ DISSOLVE ├────┤ SPC ├────┤ SPC ├────┤ SPC │
│ CONTROL     │    │ CONTROL  │    └─────┘    └─────┘    └─────┘
└─────────────┘    └──────────┘
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┌─────────────────┐
│  TAPE PLAYER    │
│ or PROGRAMMER   │
└────────┬────────┘
         │
┌────────┴──┐  ┌──────────┐┌──────────┐    ┌─────┐    ┌─────┐    ┌─────┐
│ FOUR PLUS ├──┤ DISSOLVE ││ DISSOLVE ├────┤ SPC ├────┤ SPC ├────┤ SPC │
└───────────┘  │ CONTROL  ││ CONTROL  │    └─────┘    └─────┘    └─────┘
               └──────────┘└──────────┘
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In all of these examples, you will note that the SPCs are not connected between the other models, but are in the trailing position of the hook-up.

USING THE SPC WITH THE ARION CONVERTER

When playing AVL show tapes, set the SPC projector select switch according to the projector assignment chart shown below.
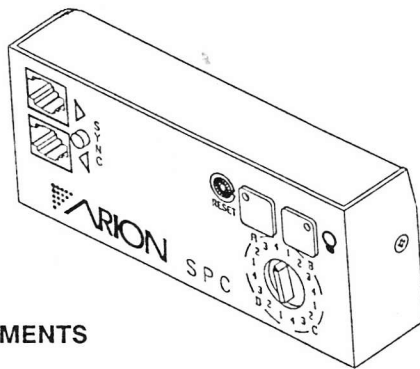
PROJECTOR ASSIGNMENTS

AVL DOVE NUMBER		AVL PROJECTORS LAMP COMMANDS	ARION SPC SETTING	
1	----------------	1-L	A	A1
		1-C	B	A2
		1-R	C	A3
2	----------------	2-L	D	B1
		2-C	E	B2
		2-R	F	B3
3	----------------	3-L	G	C1
		3-C	H	C2
		3-R	I	C3
4	----------------	4-L	J	D1
		4-C	K	D2
		4-R	L	D3
5	----------------	5-L	M	A4
		5-C	N	B4
		5-R	O	C4

This chart shows the typical AVL 3 projectors (1-Dove) per screen confirguration. The projectors could also be numbered 1 through 16 starting at the top of the chart.

* When using 2 projectors per Dove (sequence switch set to position 2) these are the settings for each screen area.