

# Product Information

## Title: Operating Equipment: Dissolve Control Programming

Projector/Dissolve Control Hook-up  
Sync Track Hook-up  
Converting Tapes to Digital Sync Signals  
Recording Signals  
80 Vs 140 Slide Trays  
3-Projector Operation  
Recording Methods

### Dissolve Control Programming : Projector/Dissolve Control Hook-Up

#### Step 1: Loading the Slide Trays

Load even-numbered slides in sequence into projector B slide tray  
Load odd-number slides into a second tray for projector A

#### Step 2: Plugging in the Dissolve Control

Connect to a 110-125 volt, 50 or 60Hz power source (60Hz only, model AV22) to provide enough wattage for **both projectors** (up to 600 watts each) **plus the Dissolve Control** (15 watts)

#### Step 3: Connecting the Projector Power Cords

Plug projector power cords into switched electrical outlets ("Switched Receptacles") on Dissolve Control back panel. This is the power supply for the projectors. Each receptacle will handle a projector with a 500-watt lamp, or one drawing less power.

#### Step 4: Positioning the Slide Trays

If the projectors are not equipped with dark-screen shutters to prevent lamp glare when no slide is in projector gate, put opaque (dark) slides in gates before placing trays on projectors  
Put trays on projectors and set them at No. 1 slot using either Forward button or SELECT control on each projector

#### Step 5: Connecting the Dissolve Control Cords

Plug Dissolve Control Cord "A" into remote-accessory receptacle of projector with the tray of **odd-numbered** slides  
Plug Dissolve Control Cord "B" into receptacle of projector with the tray of **even-numbered**  
Move selector switches of both projectors to the FAN position

### Step 6: Checking Dissolve Control Selector Switch

Set switch at the "Program" position for playback (and recording) of conventional two-projector

### Step 7: Turning On the Dissolve Control

Power On/Off ("I/O") Switch is on the rear panel. Turning the Dissolve Control on activates a circuit that will check projector connections:

If properly connected, both red "PROJECTOR" Indicator Lights on the front panel will light up for 2 seconds, then go out

If both do not light, check all cords & connections and repeat steps 2, 3, 5, & 7

If one red Projection Indicator Light still doesn't light up try switching cords "A" & "B" between the two projectors

If this check indicates a problem with one of the projectors, use another projector

### Step 8: Continuous Dissolve Operation (manual)

A continuing series of dissolves, with one beginning automatically as soon as the previous dissolve is complete, can be programmed at any dissolve rate except the 8-second rate.

Press key for selected rate and hold down until dissolve is complete

Continue holding dissolve rate key and press "Reset" key

Release both keys **simultaneously**

The Dissolve Control will continue to cycle dissolves until another dissolve rate key, or the "A" or "B" key, is pressed. The unit will then make one more dissolve before stopping.

### Step 9: Superimpose and Aligning the Images

Turn both projectors lamps On by pressing the Dissolve Control "A" & "B" keys. Reverse both projectors to align slides in slot 80.

After alignment, do not touch the projectors

Advance the trays to slide No. 1 with "CUT" key

Shut Dissolve Control power switch off momentarily & turn back on. This resets the Dissolve Control memory to slide No 1 rather than 80.

Both lamps should now be off & both trays on slide No. 1

### Step 10: Choosing the Dissolve Rate

Decide dissolve rate required: quick cut "1 sec", "2 sec", "4 sec", "8sec"

Press the appropriate key on the keyboard

After each dissolve is complete and the system is ready for the next one, the amber "READY" Light on the front panel will light up

Flash button will allow for a rapid alternating between two images. An image capturing motion (e.g., a runner) can be made to assimilate motion or animation with the Flash mode engaged along with the Freeze button during a superimposition.

### Step 11: Backing Up

To return to a previous slide, simply press the "REV" key

Dissolve Control will produce a reverse dissolve and bring up the previous slide

Repeat this as many times as needed

### Step 12: Using a KODAK Remote Control

The show can be controlled at a single rate of dissolve by using a standard KODAK EC Remote Control (any EC Remote Control cord for KODAK Slide Projectors will work, as well as the EKTAGRAPHIC IR Remote and SP Laser Remote)

Insert remote control plug into "REMOTE" outlet on rear panel of Dissolve  
"FWD" & "REV" buttons on remote provide forward & reverse dissolves

**Dissolve rate will be "1" second only**

### Notes

KODAK EC Automatic Timers **will not** operate the Dissolve Control

All 4 KODAK EC Remote Controls can be used with the Programmable Dissolve Control; **we recommend the EC-1** (has yellow orientation dot on plug)

Other remotes may interfere with some keyboard functions

Focus lever on EC-2, EC-3, & EC-4 **will not** focus the projector

### Up

To record a sync track, set dissolve control and two projectors as described in Steps 1 thru 11 **plus** add a tape recorder

Step 1: Set selector switch at "Program"

Step 2: Connect a shielded 1/4 in. (6.35 mm) phone plug to "Sync Out" jack on front of panel and Connect other end to appropriate sync input, line in, or input jack of tape recorder that **has capability to record two channels separately**

Step 3: Set VU meter to approximately 0 dB.

Step 4: Preferred way to record slide-tape programs is to produce sound track (audio) first

Step 5: Make a cue sheet to match dissolve commands to the sound track and the slides

Step 6: Play back the sound track while pressing the keys for the dissolve effects wanted

Step 7: What you see on the screen will be recorded on the sync track of the tape

Step 8: Play back is ready immediately

### Signals

Action
Step 1: Play back the 1000 Hz tape w/ a recorder w/ sync capability.
Step 2: Connect projector control cord from recorder to the "Remote" outlet on rear panel of dissolve control.
Step 3: Connect a cable from "Sync Out" jack on dissolve or "Line In" Jack on 2nd recorder. To dub soundtrack too, connect "Line Out" Jack on 1st recorder to "Line In" Jack on 2nd recorder.

When playing back the 1000 HZ tape, the relay circuit of sync recorder trips each time a closure from A 1000 Hz pulse occurs. This triggers the dissolve, then a digital sync signal.

The signals will be recorded on the sync track of the 2nd recorder at the same time that the sound track is being duplicated. Result: Programmed tape w/ sound track & digital sync track. All dissolves will be at 1-second rate.

## **Dissolve Control Programming : Recording Signals**

Programs recorded live can often be improved w/ screen effects recorded on magnetic tape & played w/ the Programmable Dissolve Control.

### **Record**

the Dissolve Control digital signals w/ an AV cassette machine that has 150 Hz tape-stop capability & line-level recording access to the audio track.  
digital signals on the track normally used for sound.  
tape-stop signals on track normally used for digital sync signals.

For playback, feed the digital sync signals from the audio track line output to the dissolve control "Sync In" jack. (Adjust sync-signal level w/ the recorder volume control.)

Plan your show & record the tape-stop signals so that screen effects occur concurrently w/ the live narration, & tape stops automatically at the proper points.

## **Dissolve Control Programming : 80- vs. 140-Slide Trays**

The Programmable Dissolve Control is designed to work w/ slide trays holding 80 slides only. While 140-slide trays will advance properly, the "reset" function will not operate correctly beyond the 40th position because the Dissolve Control assumes 80-slide trays are used.

## **Dissolve Control Programming : 3-Projector Operation**

### **Background**

The visual impact of a 2-projector dissolve program can be strengthened by the addition of a third projector with a short focal length lens. The extra projector can be used to "frame" program images with a "border slide" or can superimpose slides.

The auxiliary circuit (AUX) is used to advance the projector. The lamp is normally set to stay on for the entire show.

**Note!** The third projector will not act in a dissolve capacity with the other two projectors; it is strictly for the purpose of presentation enhancement.

### **Connections**

The Auxiliary Control Key operates a relay circuit to the AUX Connector on rear panel of dissolve control. This 5-pin connector has 2 switchable contacts, one normally opened and one normally closed, plus a third contact common to the other two.

## Control

Pressing the Auxiliary Control Key momentarily closes the open contact and opens the closed contact for about a 1/2 second. When connected through a control device, the AUX Connector makes it possible to control a wide variety of equipment. You can

- Switch a tape recorder or movie projector on & off
- Trigger a strobe light
- Or use other special-effect devices

## Tips

- The third projector will never be updated (or reset) by the sync-track system in the dissolve control; therefore, you will need to reset the projector manually
- When restarting a show that has a third projector,
  - Rewind the program tape to the beginning
  - Press the "RESET" key
  - Set additional projector to starting position (w/lamp on)

You are now ready for your show

## Dissolve Control Programming : Recording Methods

### AV Sync Recorders

- Allow separate record control of the audio channel & the channel used for recording the sync
- Divide tape into 2 tracks:
  - One for music/narration
  - One for sync signals that go to the dissolve control
- Record & play only 1 side of the cassette

### Home Stereo Recorders

- Use tape heads that divide the tape into 4 tracks
- When Side A is played, right & left tracks are heard
- When Side B is played, the other Right & Left are heard
- Both A & B Sides can be played & recorded

### Multi-Track Recorders

- Divide tape into 4 tracks
- All 4 tracks play in same direction as AV Sync recorder