

STUDIO PRODUCTION

| b a s i c |

Shooting dos & don'ts

Create shots that SIZZLE!

The keys to **GREAT**
picture composition

Developing
top-notch
teams

Maximize your studio time

A beat the clock to-do list

7 terms
EVERY
director
should
know

RULES
what's
allowed,
what's not



CLASS CURRICULUM FREE

Northwest Community Television
763.533.8196 www.nwct.org



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QUICK GUIDE

Time seems to slip away quickly during a studio production. What can you do to maximize your time? Make the most of it with this to-do list that's guaranteed to beat the clock. On your mark, get set, GO!



CREW POSITIONS

Ralph Waldo Emerson said, "No member of a crew is praised for the rugged individuality of his rowing." Working together as a team is crucial in television, too. Discover who the major players are as you develop a top-notch crew.



MICROPHONES

NWCT has a mic for your every audio need. Television may be a visual medium, but without good audio, viewers won't stay tuned in for long. Testing, 1, 2, 3 . . .

2 Policies

What's allowed, what's not.

6 Mic placement and audio level setting

Where does this thing go? And, how does it work?

8 Composition

The keys to a great picture.

9 Know your shots

Follow this model and you won't go wrong!

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Create shots that sizzle with this list of dos and don'ts.

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Standby and cue talent in 5, 4, 3 . . .

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Board operation and transition choices.



CONTRIBUTOR

"Producing your own show or being a crew member is a fun experience and a great way to share with the community. I hope this book is a useful tool as you put together your very own studio production!"

Nikki Jackett knows that organizing and working on a studio production is fun. Since her start at NWCT in November 2004, Nikki's been busy teaching studio classes and putting those skills to the test in productions that involve new and veteran members alike. Now, that's awesome!

design Tamisha Touray



CAMERA OPS

This truck doesn't run on horsepower. Seven operational terms every camera person and director should know!



SWITCHER BASICS

Giving you the know-how needed to use this essential piece of studio equipment.

contents

Studio policies

The purpose of these policies is to manage NWCT equipment in a fair and equitable manner. Follow these rules and you'll never have to worry about losing your membership privileges!

1. **All producers and crew participants must be certified members.** NWCT staff are not allowed to fill production crew positions.
2. Members must be on time for appointments. You must call if you are going to be more than 30 minutes late—if you are more than 60 minutes late, we will consider you a “no show” and give away your studio time.
3. The studio can be reserved up to two months in advance and is available on a first come, first serve basis by appointment only. Reservations can only be made by members.
4. Studio facilities may be reserved up to two three-hour slots per week. Six hours of advance scheduled time is the maximum allowed in any given week.
5. To insure the safety of those participating in programs, studio audiences may not exceed 50 people without the consent of NWCT's Executive Director.
6. NWCT's mailing address and phone number may not be used as contact information.
7. All members using equipment and facilities will be expected to produce a program for cablecast within two months.

STUDIO HOURS

Monday through Thursday 8:30am-11:00pm

Friday and Saturday 8:30am-5:00pm

Sunday 12:30pm-6:30pm



Producing programs for hire, advertisements, commercials, obscene or indecent programming, lotteries, or personal and family programs will not be tolerated.

If you need to cancel your appointment, please notify the studio manager at least 24 hours in advance; unforeseen emergencies and illnesses will be taken into consideration. Please do **not** rely on leaving a voicemail message. Talk to a studio manager whenever possible.

If cancellations are not made 24 hours in advance of your scheduled time, become excessive, or if you are more than 30 minutes late for your appointment, you may be subject to disciplinary action as follows: first offense, verbal warning; second offense, written warning; third offense, suspension.

**CALL
NOW!**

763.533.8196

Studio production quick guide

The way studio time breaks down is especially confusing for first-time producers and crew. The example below outlines how the 3 hour time slot breaks down for a standard studio production. If you're taping a larger scale program (band, demonstration, game show), please speak with a studio manager.

Staff reserves the right to give away your time slot if you are more than 60 minutes late.

EXAMPLE You book 6:30-9:30pm in Studio B.



1ST HOUR: SETUP

- Sign in at front desk
- Buy tape for recording
- Set up set in studio
- Studio manager lights set
- Get microphones that work best for production
- Set out phone for live call-in
- Update graphics and cue tapes in available linear edit room
- Create teleprompter script at volunteer work station computer
- Set up live call-in tracking on volunteer computer
- Make guests comfortable



NEXT 1½ HOURS: TAPING

- Studio manager switches over cameras and white balances—stay clear of the cameras at this time
- Load and update graphics—verify spelling of guest's name
- Load and cue tapes, music
- Set proper levels for audio sources
- Load teleprompter script
- Block cameras
- Connect audio cables
- Hook up studio monitor and teleprompter
- Mic your guests and host
- Conduct mic check
- Roll tape!



LAST ½ HOUR: CLEAN UP

- Exit all programs and clear control room
- Studio manager powers down and disconnects cameras
- Unhook and neatly coil video and audio cables
- Put away microphones and miscellaneous equipment
- Tear down set—return to set storage
- Pick up trash

Crew positions DEVELOPING A TOP-NOTCH TEAM

Following is a list of basic crew positions—you may not need all the positions listed for your production. **All crew members must be NWCT members unless otherwise noted.**



PRODUCER

- Coordinate technical and non-technical aspects of program (talent, crew, equipment, program concept, structure and content)
- Oversee taping; responsible for final product



DIRECTOR

- Responsible for all technical aspects of program
- Direct camera, audio, graphics and tape operators and floor director
- Operate switcher



TALENT/HOST

- Serve as on-camera personality—do not have to be a member

CONTROL ROOM



VTR (TAPE) OPERATOR

- Cue tapes for playback during production
- Roll in all tapes for program



AUDIO

- Set up and check all audio sources for proper levels
- Monitor sound during production



GRAPHICS

- Type in graphics (titles, credits, etc.)
- Ready graphics as needed



TELEPROMPTER

- Control speed of computer script talent reading—do not have to be a member



PHONES

- Answer and process phone calls during live call-in—do not have to be a member

STUDIO



FLOOR DIRECTOR

- Communicate director's cues to talent



CAMERA

- Run camera according to commands from director

Microphone selection

Northwest Community Television has several different types of mics available for studio productions.

Sony ECM 44 or 30 lavalier or lapel

Directional, excellent for interviews when clipped directly to clothing, small enough to easily hide, most popular mic in-studio



Shure SM58

Unidirectional vocal microphone, built-in pop filter



Lectrosonics M185 wireless

Fixed frequency VHF receiver works with either lavalier or handheld transmitter, range of 50+ feet, good for productions requiring movement



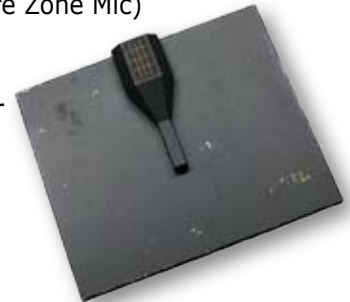
Audio Technica AT4033

Unidirectional studio microphone, diminishes ambient noise and popping with closely-miked vocals, shock mount included



Realistic PZM (Pressure Zone Mic)

Surface mount mic, omnidirectional, very low profile, excellent for pianos, drums, large vocal or instrumental groups, or stage performances



Electro-Voice 635A

Omnidirectional, good for inexperienced interviewers, fine for music and ambient sound, most popular news gathering mic



Shotgun

Directional, great for capturing sound at a distance

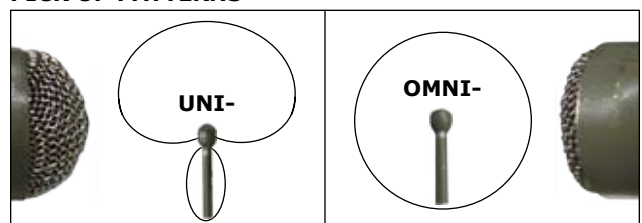


Electro-Voice RE10

Unidirectional, excellent for music or interviews, slightly better bass response than 635A



PICK UP PATTERNS



Desktop and floor mic stands are available.

Microphone placement

Mic placement is crucial to good sound quality. Our example uses the lavalier microphone since it is used most often in the studio. Lavaliers are directional mics—talent must speak across the head of the mic to achieve optimal audio levels.

This first picture shows bad microphone placement. Audio levels will be hard to control because the mic is placed opposite the direction the talent is speaking.



This next picture demonstrates good placement. The mic is clipped so that the talent is speaking directly across the microphone. Notice, too, that the mic cord is tucked under the shirt for a neat presentation.



Once the talent has their microphone placed, and you have it plugged into an input in the studio, you are ready for a sound check!

Setting audio levels

In order to set good audio levels, you will have to conduct a sound check, having the talent count or recite the alphabet so that you have plenty of time to set the levels properly. To get the best levels, have the talent face the direction they'll be looking and speaking during the program. You will probably need to make some initial adjustments once the show begins.

SETTING MASTER RECORD LEVELS

On the audio board, slide the **Master L R faders** to 0. On the record VCR, slide the **AUDIO REC LEVEL L R** controls to the third hash mark (2).



PREPARING FOR SOUND CHECK

Slide the volume fader (1) of the selected input (pictured right) to 0. Then, turn the **GAIN** (2) to the left for a line input (anything but a mic), straight up for a wireless mic, and to the right for any other kind of mic.

MONITORING AUDIO LEVELS

Use the **L R METERS** on the audio board to monitor the audio levels during the sound check.

PERFORMING SOUND CHECK

Adjust the gain so that the loudest volume bounces the green LEDs to 0 on the L R meters. If the LEDs are in the red area above 0 all the time, the audio will be distorted. An occasional bounce into the red is okay.*



Also, check the record VCR. The levels should be similar to the levels on the audio board.



Once you finish testing an input, slide its volume fader to ∞ and continue to the next input.

* If the gain is turned all the way to the left, but the LEDs are still in the red, slide down the volume fader.



Camera operation terms 7 TERMS EVERY DIRECTOR SHOULD KNOW

All camera operators and directors should be completely familiar with the following basic terms.

ZOOM

Adjust the camera lens to make the picture look closer or farther away without moving the camera.

Zoom in to make the subject appear closer.

Zoom out to make it look farther away.



FOCUS

Adjust the camera lens to make the picture look sharp or blurry.



TILT

Move the camera up and down vertically like nodding your head YES.

Tilt up means shoot higher, toward the ceiling. **Tilt down** means aim lower, toward the floor.



PAN

Move the camera back and forth horizontally like shaking your head NO.

Pan left means rotate the camera to your left.

Pan right means rotate it to your right.



5 PEDESTAL

Adjust the elevation of the camera on the tripod.

Pedestal up means raise the camera.

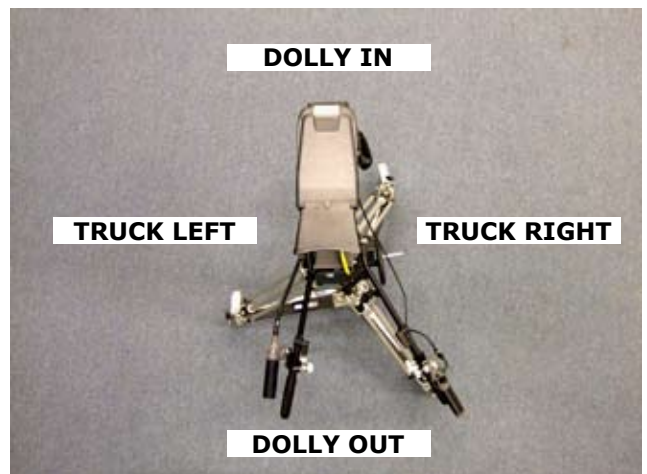
Pedestal down means lower the camera.



6 DOLLY

Travel forward or backward across the floor with the tripod.

Dolly in means move the tripod forward, toward the subject. **Dolly out** means move the tripod backward, away from the subject.



7 TRUCK

Travel from side to side across the floor with the tripod.

Truck right means travel to your right; **truck left** means travel to your left.

Picture composition

Composition is formed by determining a visual point of interest which is the key point to which you want the viewer's eye to gravitate. This point is usually determined by the **rule of thirds**.

Picture a grid in your mind—three rows across and three rows down—like the game tic, tac, toe. The rule of thirds states that important visual elements should be placed at the intersections of the grid.



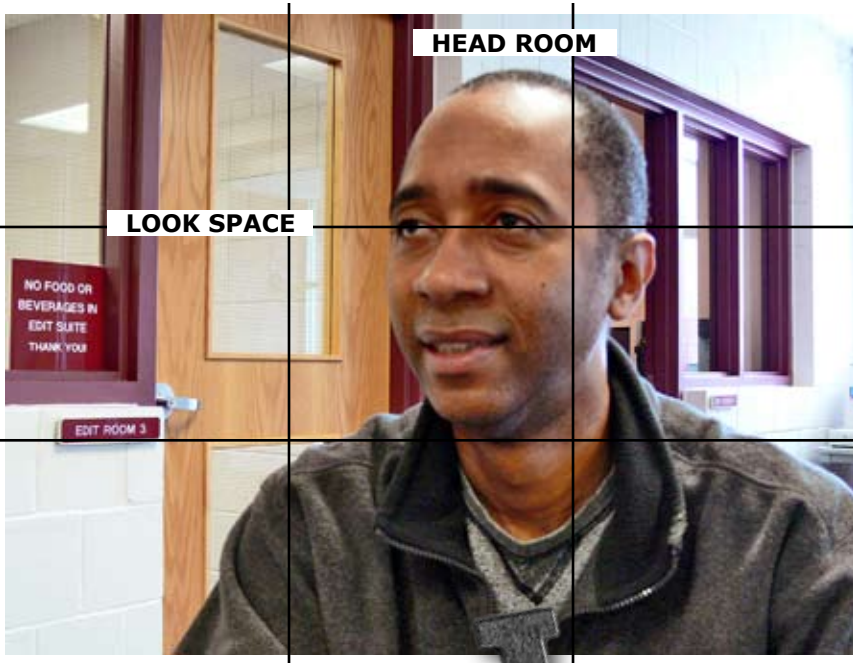
BAD PLACEMENT



GOOD PLACEMENT

Head room and **look space** use the rule of thirds. Placing the subject's eyes along the top one-third line allows for **head room**—the space between the top of the subject's head and the top of the frame.

Look space (or lead room) gives the talent additional space in the direction he or she is looking, talking, gesturing, or moving.

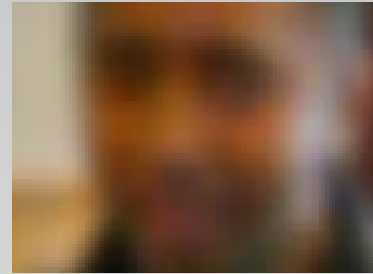


Critical focus

Because the studio cameras do not auto focus, it's important that you get a critical focus (also called a calibrated zoom) of your subject every time you get a new shot.

Here's how to perform a critical focus properly:

- 1 Zoom in all the way on your subject,



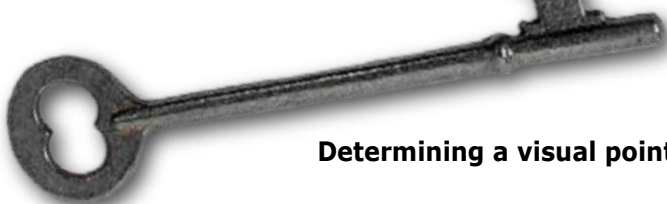
- 2 focus, and then



- 3 zoom out to the framing you want.



Doing this will ensure your subject stays in focus, regardless of how far out you zoom.



Determining a visual point of interest is K-E-Y to good picture composition!

Knowing your shots

Just as there are specific terms for camera operation, so there are for camera shots. The different camera shots are arranged in a logical sequence within a program. On the next two pages, you'll find shots commonly used in all types of studio productions. **But first, here's a little primer . . .**

Although camera shots usually have more than one name, at least one of those names is dictated by how much of the subject is being shown in a frame. Therefore, a face shot would frame the face, a chest shot would frame the body from the chest up—you get the idea!

CHEST

The **chest shot** can also be called a **head and shoulders shot** or **medium close-up (MCU)**.

WAIST

A **waist shot** cuts the body just below the waist and can also be called a **medium shot (MS)**.

KNEE

A **knee shot** frames the body from just below the knees and is also known as a **medium wide shot (MWS)**.



FACE

A **face shot** crops the head at mid-forehead and above the chin and is used to show emotion. Face shots are a popular choice when taping vocalists.

FULL

The entire body (plus a short distance above and below it) takes up the whole frame in a **full shot**. The full shot can also be a **wide shot** or **one shot**.

A **one shot** (or two or three shot) gets its name from how many people are shown in the frame (one, two, three).

A **group/crowd shot** shows a small group or crowd of people in the frame.

CONTINUING WITH THE BASICS KNOWING YOUR SHOTS



ESTABLISHING

Most shows begin with an **establishing shot**—this wide shot “establishes” the location of the production for the viewer.



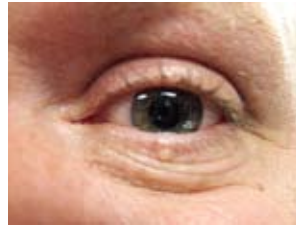
OVER THE SHOULDER

For variety, an **over the shoulder shot (O/S)** could be used. In this shot, the camera looks over a person’s shoulder (shoulder and back of head included in shot) at another person.



WIDE

From there, we’ll show the interviewer and subject together on set. This shot is referred to as a **wide shot** (or a **two shot**).



EXTREME CLOSE-UP

An **extreme close-up (XCU)** shows the object with very tight framing, tighter than the face shot. Extreme close-ups are used to show as much detail as possible. Like the face shot, extreme close-ups are often used in musical productions, a shot of a hand on guitar strings, for example.



CHEST

Third, we’ll get a close-up of our subject. The majority of our interview will be shot with alternating close-ups and the wide shot as the subject and interviewer continue to talk.



A specialty shot that can be used creatively, especially when shooting bands, is a **rack focus**, a shift in focus from one object in a scene to another.



RACK FOCUS

It’s easy to rack focus when the camera is zoomed in all the way because the camera’s depth of field, the area where subjects will be in sharp focus, is narrow.



JUMP CUT

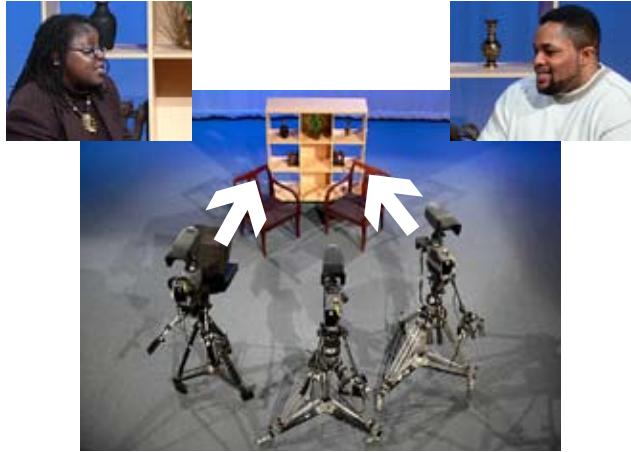
ATTENTION! Sometimes an inexperienced director will switch between similar close-ups of the same individual—this is referred to as a **jump cut**. Your subject will change position instantly, appearing to have jumped there. Jump cuts should be avoided.

Camera blocking SHOOTING DOS & DON'TS FOR SHOTS THAT SIZZLE

Blocking the cameras requires that you look at what you see from the camera's point of view, not from what you see standing in the studio. Here are a few tips to help you do that.

Cross shoot the talent

Avoid profile shots; they look flat.



DON'T

DO



Angle the guests

This is the most comfortable-looking seating arrangement.



Avoid a lot of blank space between talent

On television, gaps between people look large. Pull the chairs together so that the talent are crowded knee-to-knee (this will seem closer than seems natural in real life).



Check camera shots

Check camera shots so that plants and trees are not growing out of the talent's head.



The 180° Rule

If you're shooting a scene with two subjects, imagine there is a line connecting them. That line is called the "axis of action." Don't shoot on both sides of the axis. Keep all your shots on the same side.

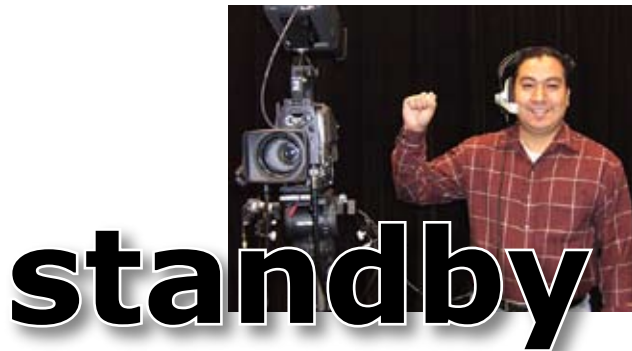
In our example, the axis of action is between the interviewer and the subject.



Regardless of framing or angle, the interviewer is always on the left and the subject is always on the right. If we switch between a shot or two from the other side of the table, the interviewer would be on the right and the subject on the left in those shots, and the viewer would be very confused.

Floor director's cues

The floor director uses a set of standard signals to relay the director's commands to the on-air talent. Review cues with talent prior to the start of the show.



INDICATES Show is about to start
SIGNAL Extend fist above head



CUE 4 seconds, 3 seconds, 2 seconds, 1 second
INDICATES Show begins in 5 seconds
SIGNAL Give a countdown, starting at 5 seconds (4, 3, 2, 1), with fingers extended



INDICATES Host or talent should start talking
SIGNAL Point to talent or host



CUE 5 minutes, 3 minutes, 1 minute
INDICATES Show ends in 5 - 3 - 1 minutes
SIGNAL Hold up five fingers (three, one)



INDICATES Show is ending—finish quickly
SIGNAL Rotate hand and arm in a circular motion above head



CUE Speak/
look towards
camera
INDICATES
Host should
speak, look
towards camera
SIGNAL
Point to on-air
camera



CUE Speed up
INDICATES
Time is run-
ning out—ac-
celerate what
you are doing
SIGNAL
Rotate hand
clockwise with
extended fore-
finger



CUE Stretch
INDICATES
Too much time
is left—slow
down
SIGNAL
Stretch imagi-
nary rubber-
band between
hands

Switcher basics THE BASICS OF THE BOARD

The job of the director is to choose what will be recorded on the master tape/DVD. The director does this by pushing buttons on the **switcher**. Usually, the director is going back and forth between two button panels on the switcher—those panels are the **program button panel** (program) and the **preview button panel** (preview).

Whatever is chosen on **program** records directly to tape/DVD and/or is “on air,” if live. **Preview** is used to select and “preview” the upcoming video. The inputs on each panel are identical.



In the example above, Camera 2 (CAM 2) is selected on the program button panel and Black (BLACK) is chosen on the preview button panel. There is a corresponding monitor for each. When the director transitions from program to preview, BLACK automatically moves (or toggles) to the program buttons and monitor and CAM 2 moves to the preview buttons and monitor.

BEFORE THE TRANSITION



Preview monitor

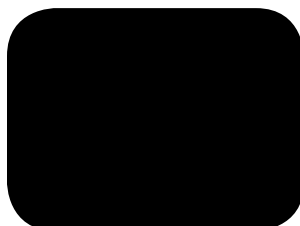


Program monitor

AFTER THE TRANSITION



Preview monitor



Program monitor

TRANSITION CHOICES

The director can go to a shot with one of three different transitions—a cut, dissolve, or wipe.

A **cut** is an instantaneous switch from one video source to another. Cuts are most often used when taping informational programming.

A **dissolve** or **mix** is a gradual transition from shot to shot, in which two images temporarily overlap. Dissolves are usually used coming out of and going into opens and closes, breaks, and full page graphics, and when taping music.

A **wipe** is a transition in which a second image, framed in a geometric shape, gradually replaces all or part of the first one. Wipes can be distracting and should be used sparingly and appropriately.

MIX



WIPE



HOW TO DO THE BASIC TRANSITIONS SWITCHER BASICS

No matter which transition you use—cut, dissolve, or wipe—you have to select the video source you want to record on the program button panel and the video source you want to record next on the preview button panel. If you select the same video source on each panel, you may not see the transition.



CUTS

On the TRANSITION panel, select the **BKGD** button (❶), then press the **CUT** button (❷) to cut between program and preview.

DISSOLVES

Select the **BKGD** button (❶) on the TRANSITION panel. Then, press the **DISS** button (❸) and move the **fader bar** (❷) to manually dissolve between program and preview.

WIPES and DVE WIPES

On the TRANSITION panel, select the **BKGD** (❶) button, then press the **WIPE** or **DVE** button (❹ or ❺).

The touchscreen (pictured to the left) will display a Pattern Selection menu. Select one of the wipes by touching the screen—the selected pattern will turn blue. On the bottom of the touchscreen, you can toggle the wipe's **Direction Fwd/Rev** and/or **Flip Flop On/Off**.



Move the **fader bar** (❷) to manually wipe between program and preview.

NOTE: Dissolves and wipes can also be performed as an auto transition. Instead of moving the fader bar (manual transition), press the **AUTO TRANS** button (❷) on the TRANSITION panel. The length of the auto transition is displayed on an LED reading (❸) below the fader bar (30 frames=1 second).



On the GLOBAL MEMORY panel, press the **MLE RATE** button (❷) and type in a new rate on the numeric pad to change this setting.

CUT/FADE TO BLACK

On the FADE TO BLACK panel, press the **CUT** or **FADE** button (❶ or ❷) to cut/fade up from black at the beginning of a program and/or cut/fade to black at the end. The fade's frame rate (❸) is displayed next to the FADE button.



On the GLOBAL MEMORY panel, press the **FADE RATE** button (❶) and type in a new rate on the numeric pad to change the rate of the fade.

CONTINUING WITH BASIC TRANSITIONS

GRAPHICS

In order for the Compix graphics to be keyed over video, the graphics first need to be assigned to a key channel on the switcher.

On the KEYERS panel, select a key channel (1, 2, 3, or 4) by pressing the respective **SEL** button (1).



up at the same time! Be sure to click on the CUT button on the Compix.



On the TRANSITION panel, select the same key channel you chose in the KEYERS panel (1-4).



On the key button panel, select a graphics source, CG 1 or CG 2 (2).

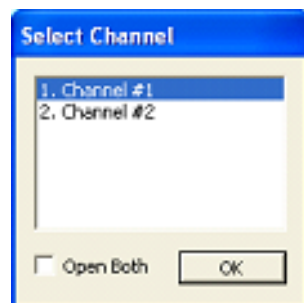



Select a transition type by pressing either the CUT, DISS, WIPE or DVE button. WARNING: Pressing CUT will execute a transition immediately!

Press CUT, move the fader bar, or press the AUTO TRANS button to key a graphic into your production.



CG 1 corresponds to Channel #1 and CG 2 corresponds to Channel #2 on the Compix. When you open the Compix graphics program (**GenCG MLE** icon on desktop), you will be prompted to select which channel(s) you want available for use. If you select both channels, you can actually have two graphics

ARE YOU THE DIRECTOR?
 Speak only when necessary.
 Call out the camera number before giving instructions.
 Give "ready" cues to your crew members. For example, say "Ready to take 2—Take 2."