

12TH MAN PRODUCTIONS

TD Guide

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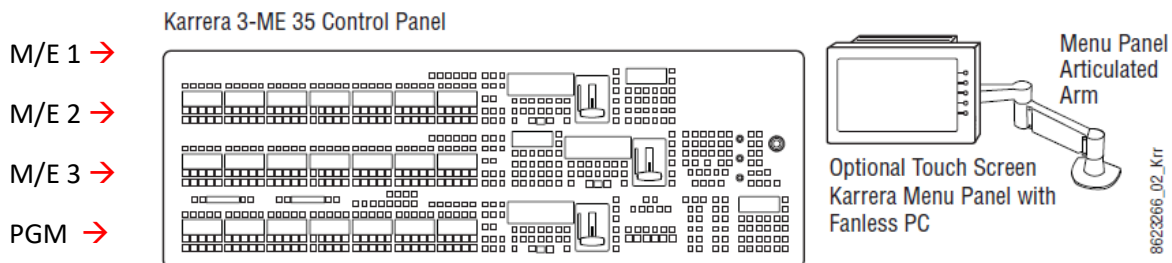
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Understanding the Switcher

The official name for this switcher is the Grass Valley Karrera K-Frame S-Series Switcher. The K-Frame refers to the heart of the switcher while the Karrera is the actual control surface that you punch your show from. Some specific features for this particular switcher are:

1. 32 standard inputs (80 maximum inputs)
2. 16 standard outputs (48 maximum)
3. Up to 6 M/Es
4. Up to 8 floating DPMs
5. 6 keyers in every M/E
6. 999 Macros
7. 1,000 E-MEM Registers

M/E stands for “Mixed Effect”. Each row on your control surface will be assigned a different M/E and this is what allows for creative freedom in building and punching shows. Each M/E can be completely unique and allow you do to different things throughout a show. In our standard broadcasts, we use 4 rows during a show: 3 M/Es and a PGM row. In our standard big screen shows, we only use 1 row: our PGM row. Before you do anything else on your show, it’s important that you delegate your M/Es how you want them to be used during your show. We always use “upstream delegation” which means we start with our PGM row on the bottom and then M/E 3 on the next row, then M/E 2 on the next highest row and then M/E 1 on our hidden, highest row.



To actually assign an M/E to a row: on a Local M/E, you select “Menu” and then “Stripe Delegation”. You will then see every M/E that you have available to assign and there will be visible rows under this menu for you to assign them to. You will know that you have assigned the M/E correctly when you see the right M/E # in the menu of your desired row next to where it says “Local E-Mem”.

Input Labeling/Source Patching

Once you have your M/Es delegated, you can begin to label your incoming sources. This is important because all the incoming sources will show up as their ENG source names. This allows you to easily find the source you are looking for, but you will probably want to rename it to what it will be called during your show. For example, if we have baseball and softball going on at the same time, you might be using Cameras 1-5 (ENG source wise) for softball and 7-11 for baseball. You won't be calling the baseball cameras 7-11, so you'll need to label them 1-5 for your show. To do this, you'll need to use the menu panel for the switcher. First, you'll go to the "User Setups" tab on the bottom row and then you'll select the "Suite Prefs" tab. You will then select the "Source Patch" tab and this will open a menu that will allow you to see all of your ENG sources and allow you to label them how you will use them during the show.



User Setups



Suite Prefs

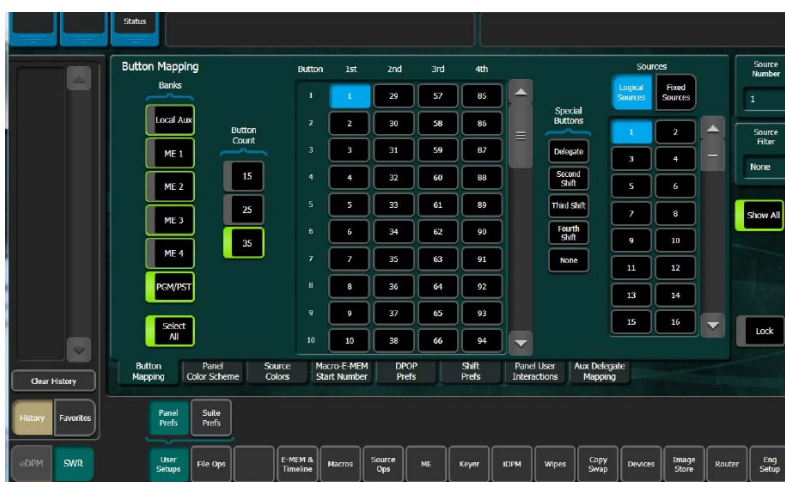


Source Patch

You never to want to change the first 3 columns (Logical ID, Eng Sources, Patch Key) as changing those will change the actual source that the switcher is reading. To label source for the purposes of our shows, you will only be changing the "Panel Name" and "OLED Name" columns. It gets repetitive, but it is important to label both columns. The "Panel Name" column only allows you to enter 4 characters and is what will appear on your control surface and your keyer panel when you begin to lay down your sources. The "OLED Name" column allows you to enter 8 characters and will appear only on your control surface when you begin to lay down your sources. This is why it is important to label both columns as the "OLED Name" column gives you flexibility and more accuracy in your source labeling, while the "Panel Name" column allows you to have your sources accurately labeled on your keyer panel.

Laying Down Your Sources/Button Mapping

Once you have labeled all of your sources, you are ready to start putting them onto your board. Using the menu panel, you'll again go to the "User Setups" tab. You will then select "Panel Prefs" and then select the "Button Mapping" tab.

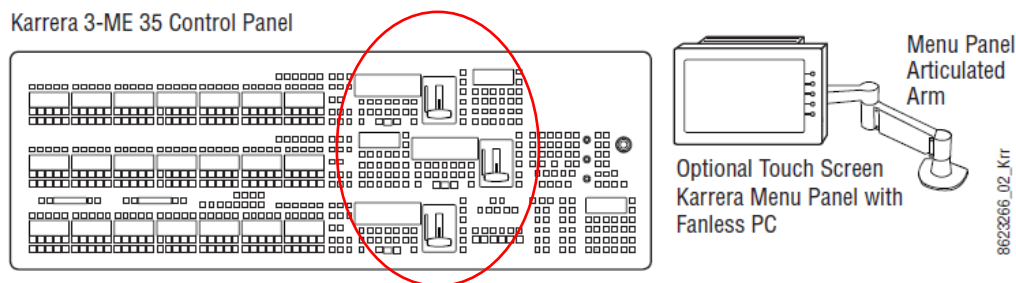


User Setups
→
Panel Prefs
→
Button Mapping

First, you'll select the options under "Banks" and "Button Count" that apply to you. Under "Banks", you'll select which of your rows on your board that you want to lay down sources. For most broadcasts and big screen shows, you'll want to select "Select All" so that you can lay down your same sources on each row. Under "Button Count", you'll select how many buttons are on the board that you are using. The boards in PCR 1, PCR 2, and PCR 3 all have 35 buttons, while the board in PCR 4 has 25 buttons. Next, in the middle section, you will choose which actual button (1-35) on the board you want to assign a source to. The 1st, 2nd, 3rd, and 4th options you see refer to different shifts on each M/E. This just gives you more room to place sources if you need to have more than 35 sources for your show. The 1st shift is what appears by default on your M/E and this is where you will want to map most of, if not all, of your sources. Next, you will select either "Logical Sources" or "Fixed Sources". The "Logical Sources" are essentially your external sources and are where you will find most of your sources. The "Fixed Sources" are essentially your internal sources and you will find a few sources that you need there, including your Image Stores, your test bars, and your source of black. Once you have either "Logical" or "Fixed" selected, you will then find and select the source that you want to place on your board. The source names will appear as whatever you labeled them during your source patching but it won't change the order. So, if you labeled Cam 7 as "1", then the source you are looking for will still be the 7th button, but it will appear as "1".

Keying

Keying is one of most important parts about TDing and it is imperative to learn properly in order to execute a good show. Each M/E on your board has its own keyer section and you can assign different sources to different keys on each M/E.

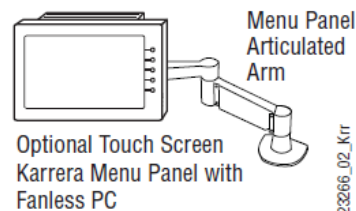
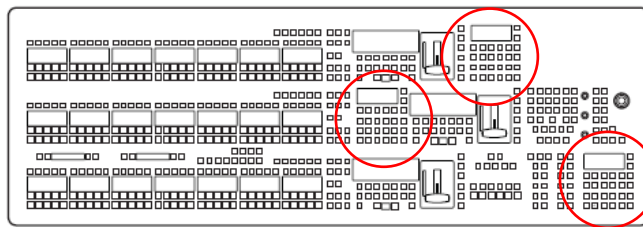


Each M/E has 6 keys that you can delegate sources to. There are a couple different ways to delegate sources to different keys. Using the menu panel, you can go to “Source Ops” and then “MEs” and assign sources to keys. The other way you can delegate your keys is to hold one the key buttons above buttons 31-35 and then select your source by pressing the small button above the name of whichever source you want to delegate. Something to keep in mind before delegating your keys is key priority. By default, key 1 will have the highest priority and key 6 the lowest. So if you have lower thirds in keys 1 and 2 and have them both up on program, you will only see key 1, since it has priority over all other keys. If you want to change your key priority, you can select the “Keyer” tab and then the “Priority” tab and then change your priority to whatever you like. Once your keys are delegated, there are few different ways to actually punch them to program. To the right of the T-bar on each row, you’ll see buttons for keys 1-6 aligned vertically. If you don’t want to use your preview and just want to bring up a lower third without changing cameras, you can press one of those buttons and it will auto effect on with whatever transition you have selected in the preview area. If you want to transition to a different camera with a graphic already on, you will need to use the key buttons that are to the left of the T-bar and aligned horizontally. If you want a key to take action, you will select it here and then it will take action when you either cut or dissolve to a different camera. If you don’t want a key to take action, you will make sure it is not selected. This means if key 1 is off and you want it to cut on with the next camera cut, you need to select it. This is also the case if key 1 is on and you want it to cut off with the next camera cut. If key 1 is off and you want it to stay off, then you need to make sure it is not selected. The same applies if key 1 is on and you want it to stay on during your next camera cut. The preview window is your best friend when using keys during a show.

E-MEMs

E-MEM is short for “Effects Memory” and is capable of learning and storing your board in different states. This is what allows TDs to punch shows as efficiently as possible. There are 1000 E-MEM registers on the switcher, so you can store the state of your board 1000 different ways. What’s happening you create and store an E-MEM on your board is it is essentially taking a screenshot of however you have your board set and it is storing that info into whichever register you learn your E-MEM. If you have cameras 1-5 on your board, with camera 2 in program, camera 1 in preview, and key 3 on in program when you learn an E-MEM, anytime you recall that E-MEM, it will return your board to that exact state. If I learn that E-MEM onto Bank 1, register 3, every time I press that register it will pull up the board exactly how it was when you learned it.

Karrera 3-ME 35 Control Panel



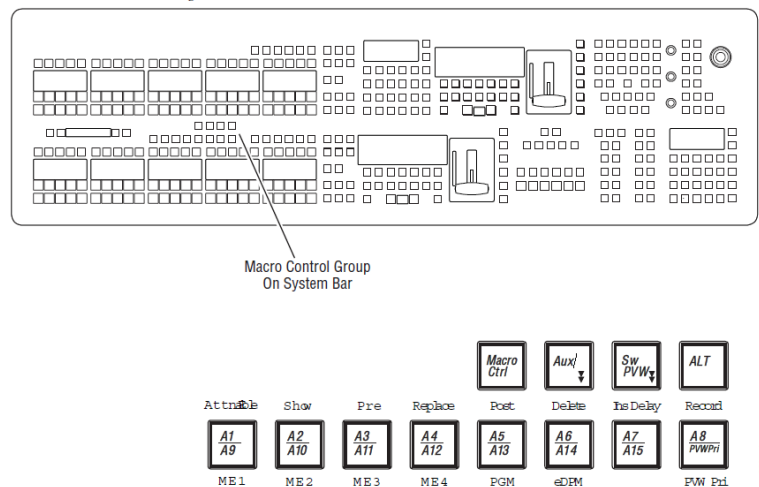
The E-MEM areas on the board are where the keypads are on each row. The E-MEM on the bottom row in the right corner is the “Master E-MEM”. We use the Master E-MEM to create and store timelines. The E-MEMs on the top 2 rows are our “Local E-MEMs”. This is where we store all of our E-MEMs of the state of our board. The reason that there is a different E-MEM on each row is that it only stores the state of your board on that specific M/E that it’s on. So when you learn an E-MEM on M/E 3, it is only storing that state your board on M/E 3. To create, or learn, an E-MEM, you select which bank you want to store it on and then press the “Lrn” button and then select whichever register you want to store the E-MEM.

Macros

Macros are a way to record a series of actions and then play them back by pressing a single button. Like an E-MEM is essentially a screenshot, a macro is essentially a screen record. By creating macros, you're allowing yourself to work much more efficiently as a TD, specifically when it comes to utilizing the clip store. When you record a macro, it is recording every button you actually press on the control surface as well as anything you press on the menu panel. We use macros to load and play 99% of our videos for our big screen shows. When you play back a macro that you recorded, it is playing back each step in the order that it was recorded and it is playing them back as quickly as possible. So even if you took 30 seconds to complete all your steps while recording the macro, the macro will be played back with each step happening just 1 frame apart. You can add delays in between steps in a macro once it is recorded, but most of the macros we record are ok to be played back as quickly as possible. You can create and store up to 999 Macros on each switcher. There are a couple different ways to record macros. Using the menu panel, you can select the "Macros" tab on the bottom row and then the "Catalog" tab. You will then see that there are 10 pages, 10 banks on each of those pages, and then 10 registers on each of those banks. You just select whichever register you would like to record your macro in and then hit "Record". When you are done executing the different steps that you want to record in your macro, you just hit the "Stop" button. There is no button that actually says "Stop" but you can see the Stop image under the "Delete Macro" button. You can then name your macro whatever you would like to name it. If the macro I just record was a bunch of steps to load an Intro video and put it in preview, I can label it "Intro" that way I know every time I play that macro back, it is going to load my Intro video. You can also record a macro using the board.

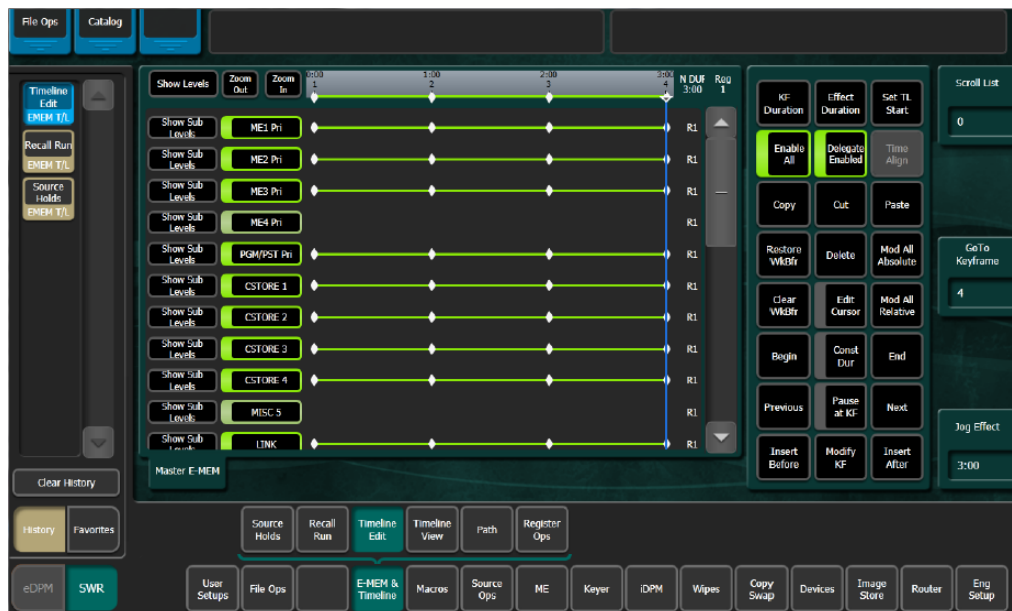
You need to make sure that you have the "Macro Ctrl" button selected. Once that is selected, all the button under the Macro control group will turn yellow they can then be used for macro purposes. You then can just hit the "Record" button that's on the board and then select whichever register on the board you want to record to and execute all your steps and then hit "Record" again to stop the macro.

Figure 73. Macro Buttons



Timelines

Once you know how to create and store macros, you can begin to learn timelines. Timelines are similar to Macros in that you are essentially creating a recording of steps that you want to play back. The difference is that timelines allow you to manipulate the timing in between steps a lot easier and it also allows for you to manipulate timing and actions from different functions of the switcher all at the same time. You will learn, store, and edit all of your timelines in the Master E-MEM on the bottom row of the switcher. Before you create a timeline, you need to select which functions of the switcher you want to command. You will have a separate row in the timeline for each area you select. We usually select Macros and whichever clip store channel you want to load and play clips from as our functions. To select these, you will use the 8 "Misc" buttons that are just to the left of the Master E-MEM. Each Misc button is assigned a different function. Misc 1-4 mirror our clip store outputs. So if you are planning on loading and playing clips out of clip store channel 3 in your timeline, you need to have Misc 3 selected. Misc 8 is our Macro function. For broadcasts we usually only have channel 1. So if you are creating a timeline for a broadcast, you would want to have Misc 1 selected for Clip Store output 1 and then Misc 8 selected for Macros. Once those Misc buttons are selected, you can create your timeline. You do this the same way as learning an E-MEM. You'll press the "Lrn" button and then select whichever register you want to store your timeline in. Next, you'll want to pull up your timeline on your menu panel so you can see what you are doing. You'll select the "E-MEM & Timeline" button on the bottom row and then the "Timeline edit" button. Once there, you will be able to see your timeline that you have created. You should see a row for each of the Misc buttons that you selected. For our example, you should see one row for CS-1 and one row for Macro. And next to each row, you should see a single key frame (looks like a



white diamond). This is first key frame in your timeline and is where you will assign your first command. To add more key frames, you need to make sure the Misc button for the row(s) you want to add a key frame to are selected and then you hit the “Insert >” button on your Master E-MEM on the board to insert a new key frame after your first key frame. You can also press the “Insert After” button on your menu panel. By default, it will insert the new key frame exactly 1 second after the first key frame. You need to figure out how many steps your timeline needs to be and then insert that amount of key frames. You can now go through each key frame on your timeline one by one. The vertical blue line indicates where you are currently on your timeline. When you wish to assign commands or manipulate the timing of a key frame, you need to make sure that the vertical blue line is on that specific key frame. To go back and forth between key frames, you can either select the “Next” or “Previous” button on your actual board or on the menu panel. Once you have added the correct amount of key frames to your timeline and learned how to navigate it, you can begin to assign commands to these key frames. We’ll start with clip store commands. Any time you wish you to add commands of an external device in a timeline, you’ll need to go to the “Devices” menu on the bottom row. Since the Clip Store is an external device that has been routed into the switcher, this is where we will go to add our clip store commands for our timeline. Once there, you will select the “Timeline Events” button. Let’s say we simply want to load and play a clip as part of a 2-step timeline. First, you need to make sure that the blue line is over the correct key frame on your timeline. Once you know that, you can go to the “Timeline Events” menu under “Devices”. You’ll look through the “Device



Summaries” section on the left until you find the clip store output that you want to load and play your clip from. Once you have that selected, you’ll select the “Load” button on the right. That will then turn green and you should see text of the name of the clip that it is trying to load. You can click the text and it will take you to the Clip Store menu where you can select the clip that you want to

load. Once you have the correct clip, you want to modify your key frame, which is just saving that command that you have assigned to it. You can either go back to "Timeline Edit" on your menu panel and select "Modify KF" or, using your board, you can select "E-MEM Edit" and then "Mod". You will then select next to move your blue line to the 2nd key frame. You will then select "play" and then modify your key frame to save the assignment. Next, we will move on to the Macro function in the timeline. Just like with our clip store function, you'll need to make sure the blue line is over the key frame that you want to edit. For our example, we'll make sure the blue line is over the first key frame. You will already need to have the macros created that you will need for your timeline at this point. Since our key frames for each function are at the same time, we need to select a macro that will occur at the same time as clip loading (first key frame from the clip store function). Since all the clip is doing is loading and we're preparing ourselves to play it on the next step, we want assign a macro that is hiding our clip store while it loads. The macro we want is to turn our clip store key off (whichever key you have assigned clip store to on your board). To actually select the macro that you want to assign, you will go back to your "Macros" menu and then "Catalog". Next, you will use the "Macro in E-MEM" section on the top/middle part of this menu. You will select the box where it says "Macro No." and then find and select the register of the macro you want to assign to your key frame. You will press the register and then hit "Select". You should see the correct Register # where it says "Macro No." now. If that is correct, you will modify your key frame to save that macro assignment. You will then move the blue line to your



second key frame and select the macro that will correspond with our "Play" command from our clip store. Since we are playing the clip, we want to select the macro that will turn on the key that our clip store is assigned to so that we will actually see it in program. Once that is done, you will need to manipulate the timing of your timeline. To do this, you will use the "Kf Duration" function on your switcher. The Kf duration refers to the amount of time between the key frame that you are currently on and the next key frame that comes after. So if you wanted to change the duration

between the loading and playing of the clip, you would need to make sure the blue line is over your first key frame. You will then select Kf duration and enter the desired amount of time. It will be 1 second, or 30 frames, by default. If you just wanted 5 frames, you would punch in .05, then select enter, then select modify to save the new kf duration to your timeline. Now you are ready to load and play your timeline. To load your timeline, you simply hit the correct register in your Master E-MEM. This will load that specific timeline and, by default, execute whatever commands you had assigned to the first set of key frames. This means that if we load our example timeline, it would automatically turn our clip store key off and load our desired clip. To actually play our timeline, we hit the "Run" button in the bottom right under our Master E-MEM. Since loading the timeline automatically executes our first set of key frames, when we hit "run", it will go through the rest of your timeline, starting with the 2nd set of key frames.

How to Save/Load Shows

Once you are done creating and editing your show, you can save that show so that you'll always have it. Before you begin building your show, you don't have to do anything if you don't want to. You can start to lay down sources and build timelines and macros as soon as you sit down in front of the switcher. If you prefer to start with a completely blank show, that is a possibility. To do this, you go to the "File Ops" tab on the bottom of the menu panel and then select "Show Files".

Next, you'll see options for either "System Storage" or "Remote Storage". The System Storage is the internal/local storage on the switcher. The Remote Storage is the external storage. This gives you the option to save and load shows to and from a USB drive or other kind of



external drive if you so desire. We have plenty of room on the system storage, so we save our shows locally. Once you are in the system storage menu, there should be a file titled "Blank". When you see that, you will select it and then press "Load Show" in the middle of screen under the "Show Create & Load" section of the menu. You will then see the buttons under the "Create Show" section light and numbers begin to populate next to them. You want to make sure that all buttons are selected except for "Eng Setup". The reason we don't select the "Eng Setup" is that that is how our sources get messed up and settings get worked around. Just for clarity, the buttons you want selected are "Panel Memory", "Panel Presets", "E-MEM", "Suite Presets", "Macros", "Source Tables", "Cues", "Source Memory", "eDPM", "Router R-MEM", and "Source Rules". Once all of those options are selected, you can then press "Load Show" and your board will be reset. This is also how you load any show that you may want to load. To create a show, you go through these same steps, except you select "Create Show" instead of "Load Show". Then you select all the functions you want to save (every function except for Eng Setup). Then you can type in whatever title you want to give your show and then hit "Create". Creating/Loading shows typically takes about 30 seconds to 2 minutes.