



Titan TV Remote Equipment Setup

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Titan Stadium Setup

Initial Setup

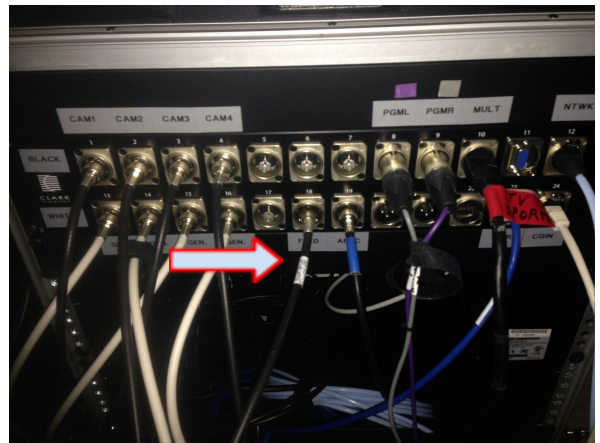
1. Make sure that the far left window is open and the 2nd-3rd windows are closed, unless weather conditions prevent it be from being open.
2. Uncap video and audio cart covers and place video switcher on left with audio on right.
3. Place HD Display on the center of the table and the CG iMac on the far right of the table.
4. Plug power strip into outlet on the wall. Only use the power strip to power devices to protect from an electrical surge.
5. ****DO NOT power any devices on until Ethernet cables have been plugged in.****



Audio and Video Carts

Before you connect camera cables, a few cables need to be connected to the video and audio carts for Titan Stadium specifically.

1. Upon entering the press box control room, there should be a BNC coming from the In-House Video production room to the right of the TTV control room. This cable feeds the Video Board on the field and should be plugged into the BNC on the video cart labeled **CLEAN**.

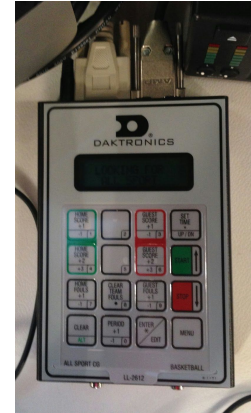


2. At Titan Stadium, there is a line input from the PA booth. This allows TTV to receive a feed of the referee and PA announcer. When entering the TTV control room, there will be an XLR near the floor running from the control room to the video production room. Plug this XLR into **MIC 6 (Blue)** on the audio panel.

All Sport CG

At Titan Stadium we are able to interface with the scoreboard to receive a live data feed of score, time and various other in game stats. Follow the steps listed below to properly setup this feature.

1. Place the **All Sport CG** on the table next to the iMac.
2. Plug the power supply cable into one of the power strips and the back of the device.
3. Find the USB cable on the back of the device and plug it into the back of the **iMac** labeled **COM1**
4. Find the $\frac{1}{4}$ " **Black Cable** on the back of the device. This cable needs to connect to the athletic department's scoreboard. Follow the pipe underneath the table to find a hole leading to the video production room to the right of our control room. This cable plugs into the back of the main scoreboard on any of the available **J Cable ports**.



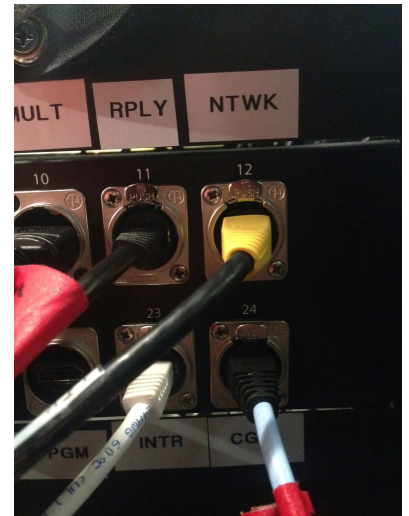
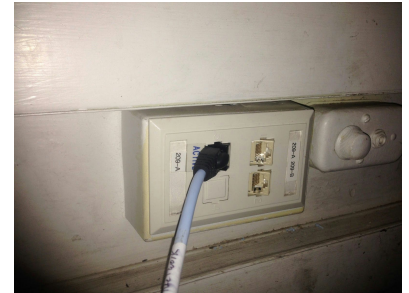
General Setup

It is imperative that you follow the procedures below **IN ORDER** before powering on any devices.

Ethernet Cables

There are various lengths and color of Ethernet Cables with the Remote Gear. It's important to be aware of what color and length cable that is being used, as some are for certain applications only.

1. Plug the **Black** Ethernet cable on the Orange spool into back of the video cart panel labeled **NTWK**. Plug other end into data jack on the wall labeled **Active**
2. Plug the all **White** Ethernet Cable into audio cart labeled **INTR** then plug the other end into the video cart labeled **INTR**
3. Plug the all **Black** Ethernet Cable in the video cart labeled **RPLY** plug the other end into the **back of the KiPro** labeled **LAN**
*See Instant Replay Instructions for setting up this device
4. Plug the **Blue** Ethernet Cable in the video cart labeled **CG** and plug the other end into the Ethernet port on the **iMac**
5. Once all devices have Ethernet cables plugged in, then plug in the devices.

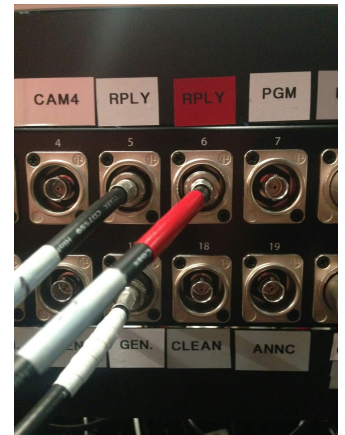
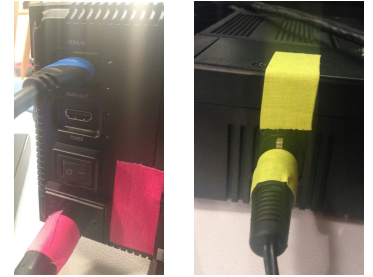


MultiDisplay

1. Plug the Power Cable into the Power Strip
2. Plug the HDMI cable into the video cart panel labeled **MULT** then plug the other end into the HD display on the side port.
3. If no image appears once switcher has booted up, use the TV remote to make sure that the "Side HDMI" has been selected.

Instant Replay Setup

1. Start by placing the **KiPro**, **SloMo Mini Controller** and **Varizoom Monitor** next to the CG.
2. Be sure that the **Black** ethernet cable is plugged into the port on the back of the KiPro labeled **LAN**.
3. Find the power supply cables that are taped together and plug them into a power strip. The **yellow** end plugs into the **KiPro** the **pink** end plugs into the **Varizoom Monitor**.
4. Find the braided cable containing the 3 BNC cables and 2 XLR. Start with the male XLR ends and plug them into the back of the audio cart. Remember the saying "*Red is Right*" so the **Red XLR** cable plugs into **LINE8** and the **White XLR** cable plugs into **LINE7**.
5. Next, take the BNC cables from the braided cable. On the video cart, plug the **BNC1** cable into the **RPLY VIDEO** port labeled **#5**. Plug the **BNC2** cable into the **RPLY GEN.** port labeled **#17**. Lastly, plug the **Red BNC3** Cable into the **Red RPLY** port labeled **#6**.
6. Find the other end of the braided cable and start with the female XLR ends. Again "*Red is Right*" so the **Red XLR** cable plugs into the back of the KiPro labeled **Analog Audio Out Right** and the **White XLR** cable plugs into **Analog Audio Out Left**.
7. Take the BNC cables from the braided cable and plug the **BNC1** cable into the port on the back of the KiPro labeled **SDI Out**. Plug the **White BNC2** into the back of the KiPro labeled with **White Tape**. Plug the **Red BNC3** into the back of the KiPro labeled **SDI In**.
8. Find the black cable containing several different connectors. Plug the **small green** end of the cable into the back of the KiPro labeled **RS-42** plug the **large green** end into the back of the **SloMoMini**. There is a power cable in this strand, plug this into one of the power strips.
9. Lastly, plug the short **HDMI** cable into the back of the KiPro labeled **HDMI Out**. Plug the other end into the back of the **Varizoom Monitor** labeled **HDMI-IN**.
10. See Instant Replay Operating Instructions for details on how to properly operate this setup.



GG Setup

1. **Before powering** the CG on be sure that the following cables are plugged in
 - a. Ethernet
 - b. White Thunderbolt
 - c. White USB Dongle
 - d. AllSport CG (if available)
2. When first powering on the iMac, a box will appear to select either Windows or Mac OS, **choose Windows.**
3. Once windows has booted up, open the **Xpression DataLinq** software icon located on the desktop. Then minimize the window. (This must be open for any DataLinq services to work!)
4. Next, open **Xpression Designer** software icon located on the desktop.
5. To open a file, choose **File** → **Open Project** and select your desired file
6. After clicking open, a dialogue box will appear asking if you want to save the current project, select **No.**
7. For information on the operation of this software, consult the [Xpression User Manual](#) located on the Firefox Toolbar or [TTV website](#).

Boot Up Procedures

1. Power on **AJA IOXT**
2. Power on **iMac**
3. Power on **Clearcom IP Communications**
4. Power on **Ross Switcher**
5. Power on **Mackie Audio Mixer**
6. Power on **KiPro**
7. Power on **JLCooper Slomo Mini**
8. Power on **Varizoom Monitor**

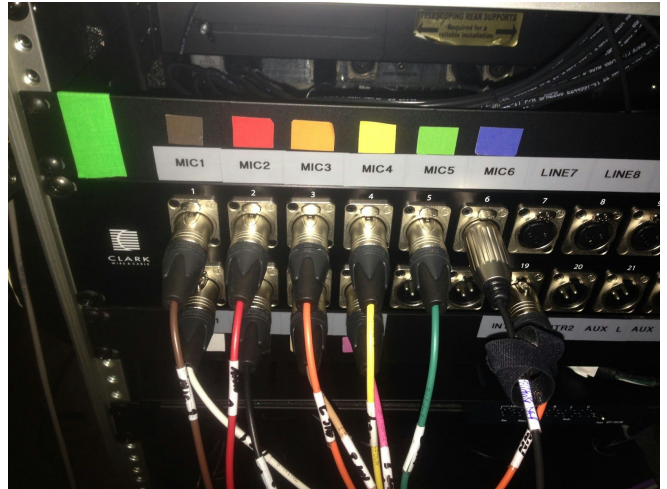
Connecting to the Audio Cart

The audio cart setup starts with the audio jumper cable, a single cable black cable with several colored XLR cables bound inside.

1. Begin by taking the **bright green** taped end of the cable and plugging the audio cables into the corresponding color on the back panel of the audio cart.

· i.e. Orange Cable gets plugged into the Orange labeled XLR connector

2. Once all of the cables have been plugged in to the audio cart take the open end to the video cart and plug the **Purple, Gray, Brown and Red** cables into the **video cart**. The other ends will remain unused until camera cables are plugged in.



Connecting Cameras to the Video Cart

1. When cameras are setup, they should feed their cables into the control room with approximately 3 ft. of slack (to prevent cable stress), follow the instructions below to connect them to the audio and video carts.

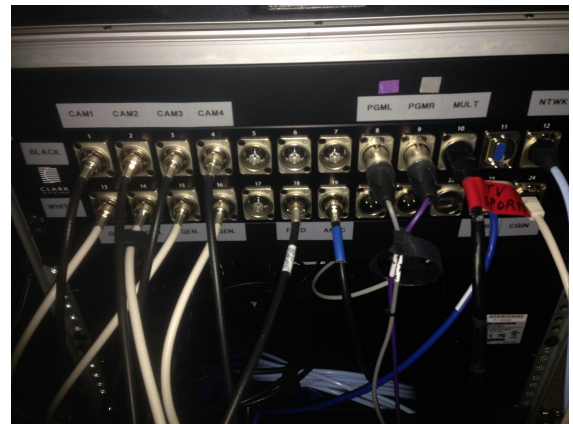
2. Bring the cable to the video switcher first and plug the **Black** BNC into the BNC labeled to the corresponding camera. This row is labeled **BLACK**

Ex. Camera 1 would be plugged into the **CAM1** BNC

3. Plug the **White** BNC connector into the BNC on the bottom left of the video panel labeled **GEN**. This row is labeled **WHITE**.

4. Once all of the BNC cables are plugged in, take the open end of the audio jumper cable and find the following colors: **White, Black, Tan and Pink**

5. Plug each of the **Red** XLRs from the camera cables into the **White, Black, Tan and Pink** cables. The **Red** cable carries the intercom audio on the cameras, so any of these colors will work.



Sending Audio Back from a Camera

If you wish to send audio back on the camera you are plugging in, for instance nat sound of a game, or a stick mic from a stand up, follow these instructions.

1. Plug your audio source (Mic) into the **Brown** XLR at the Camera.
2. Identify where you would like your source to be on the audio mixer and find that input on the audio cart panel.
Ex. **Stick Mic** is on **MIC 3 (Orange)**
Ex. **NAT Sound** is on **MIC 4 (Yellow)**
3. Once you have identified the **MIC #** and the **color**, plug the **Brown** XLR from the camera cable into the colored XLR jumper cable.

Connecting Announcer Cables

Announcers Cables are the same design however they vary in length for each venue. At Titan Stadium, the cable is **20ft** in length and at Kolf, the cable is **150ft**. If you are setting up at a different location, these lengths are something to keep in mind when location scouting.

1. Start by taking the announcers audio cable labeled **ANNC**.
The bright green taped end goes to the audio cart.
2. Plug the **Brown** and **Red** colored cables into the **Brown** and **Red** labeled MIC inputs on the audio panel (**MIC 1, MIC 2**)
3. Plug the **Orange** colored cable into **INTR 2** on the audio panel
4. Plug the **Blue** taped end of the BNC jumper cable (a 15ft BNC cable) in the **Blue** taped end of the announcer's white BNC.

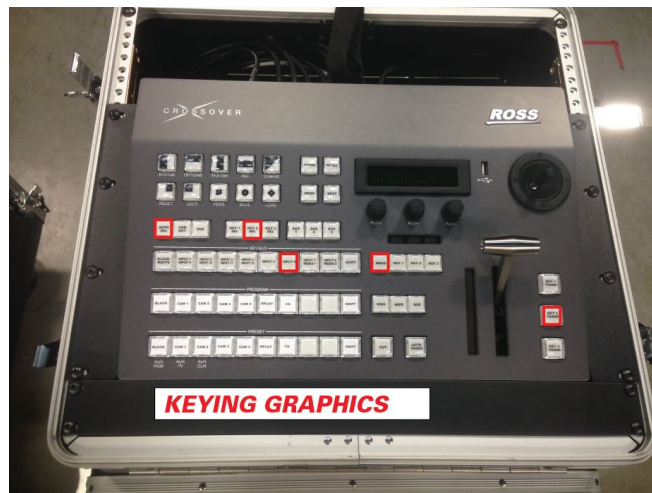
The other end of the cable should go to the announcers. The announcers will connect their **Play-by-Play** XLR to the **Brown** Cable and the **Color Commentary** XLR to the **Red** Cable. Their **program** feed will be from the **Orange** Cable. The **White** BNC gets plugged into the back of their **monitor**.

Keying Graphics

Graphics should be keyed **KEY 2**. Follow the instructions below to configure the correct key.

1. Press **KEY 2 SEL**
2. Press **AUTO SEL**
3. From the **Key/Aux** row, press **INPUT 6**.

The graphics are now successfully keyed and ready for broadcast. To test the setup, go to Xpression and take a graphic online. Then press the **KEY 2 TRANS** button on the switcher to toggle the graphic on or off. Make sure to press **BKGD** after finishing the keying process. This tells the switcher to only cut between the cameras and not the keys.



Setting up a DVE (Digital Video Effect)

-Use this method to Key the clock-

1. DVEs should be keyed on **KEY 3**. Press **KEY 3 SEL**
2. Press **DVE**
3. From the **Key/Aux** row, select the desired input (Ex. **INPUT 1/INPUT 9**
 - a. To key the clock you would select **Input 1**
4. To make the DVE live, press **KEY 3 TRANS**
5. Use the **Size** nob to adjust the size of the key
6. Press **NEXT** twice, **HCrop** and **VCrop** will appear on the LCD screen. Use the nobs to adjust the crop of the image
7. Use the joystick to move the key to the desired place



Camera Setup

Instant Replay Operation

Viewing Clips

W1-Clip Minus

W2-Clip Plus

To rewind to the beginning of a clip, push **STOP** twice. Pushing it once only pauses the clip.

For Instant Replay

- The **ENABLE** button needs to be lit.
 - The **T-bar** should be in the **1/2 half way position** to allow the clip to be played at full speed when the replay button is selected.
1. While **ENABLE** is lit, begin recording by pressing **PLAY** and **SHIFT**.
 2. Select **Mark IN** and **Mark OUT** at the desired times for the play you are viewing.
 3. Select **REPLAY** when you want to replay the clip.

The SloMo Mini will rewind and play the clip at the speed determined by the T-BAR position. This may be adjusted for your viewers enjoyment if needed.

When it reaches the Mark OUT point it will return to recording a new clip waiting for the next Mark In and OUT points.



Troubleshooting Common Problems

Graphics Problems

Not Displaying Graphics On Air

If you are using the CG and able to open a file but not play it out and see it on the multi display, then the AJA IOXT was not booted up in the correct order. Close your Xpression project and shutdown the iMac. Then power off the IOXT and ensure that the Thunderbolt cable is connected in the back of the iMac. Now power on the IOXT first and then the iMac. If you are still running into problems, engineering assistance will be required.

Camera Problems

Genlock: *The video from a particular camera has a black bar going across the entire screen or appears to flash to black when cutting to it.*

This is because the camera is not correctly timed and is most likely due to cables being plugged in wrong. The solution is to refer to the section regarding **Connecting a Camera** and ensure the cables are plugged in at both the switcher and the camera correcting.

Camera Gain: *Video from a particular camera looks extremely bright and snowy.*

The gain is most likely enabled and should be turned off. This switch can be found on the left side of the camera and should be set to the lowest possible setting.

White Balance: *Image looks blue or orange*

The white balance has not been properly set. Make sure that the white balance switch on the left of the camera is flipped to either A or B. Then zoom in on a white object that fills up the entire screen. While zoomed in on the white object, locate the white balance switch in the front of the camera. Flip the switch up towards the WB text and let go. Your camera should now be properly white balanced.

Switcher Manual

http://community.rossvideo.com/wp-content/uploads/CrossOver-v4.0_6-12-User-Manual-EN.pdf

Xpression Manual

<http://community.rossvideo.com/wp-content/uploads/XPression-User-Guide3500DR-001-4.0.pdf>