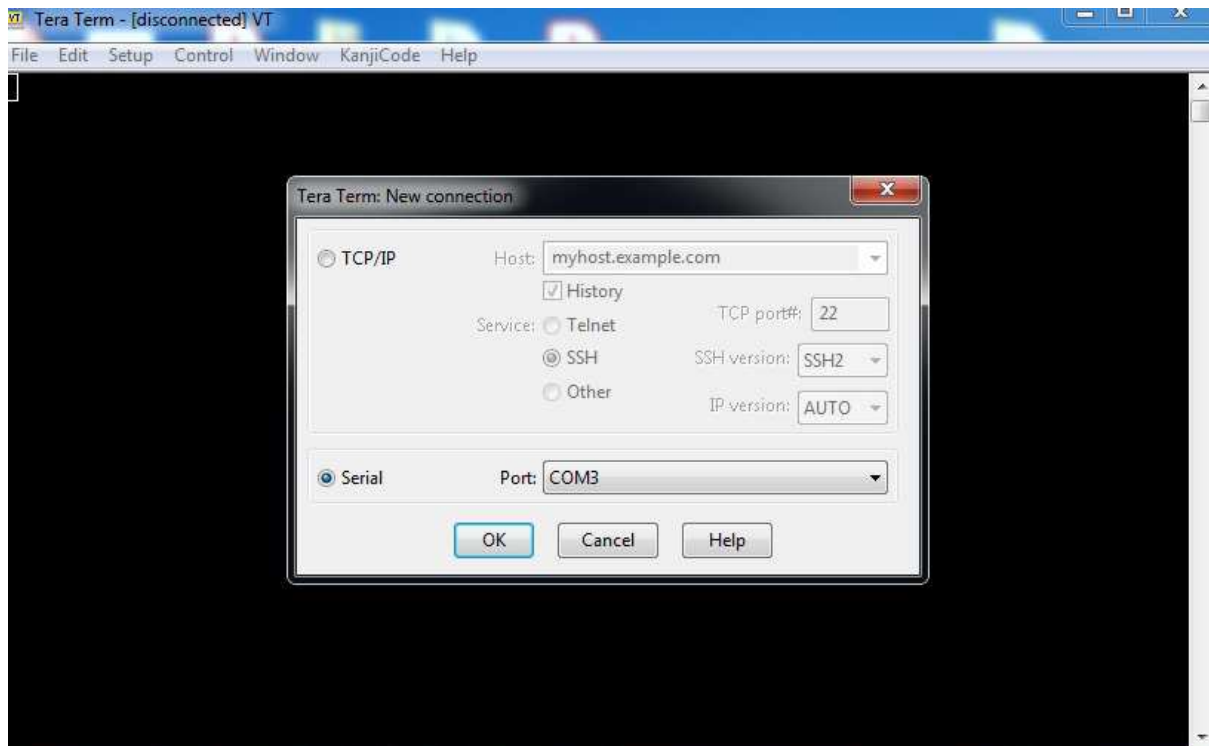


Here is how to get access to bootloader console on Pioneer's AVIC/AVH/SPH units.

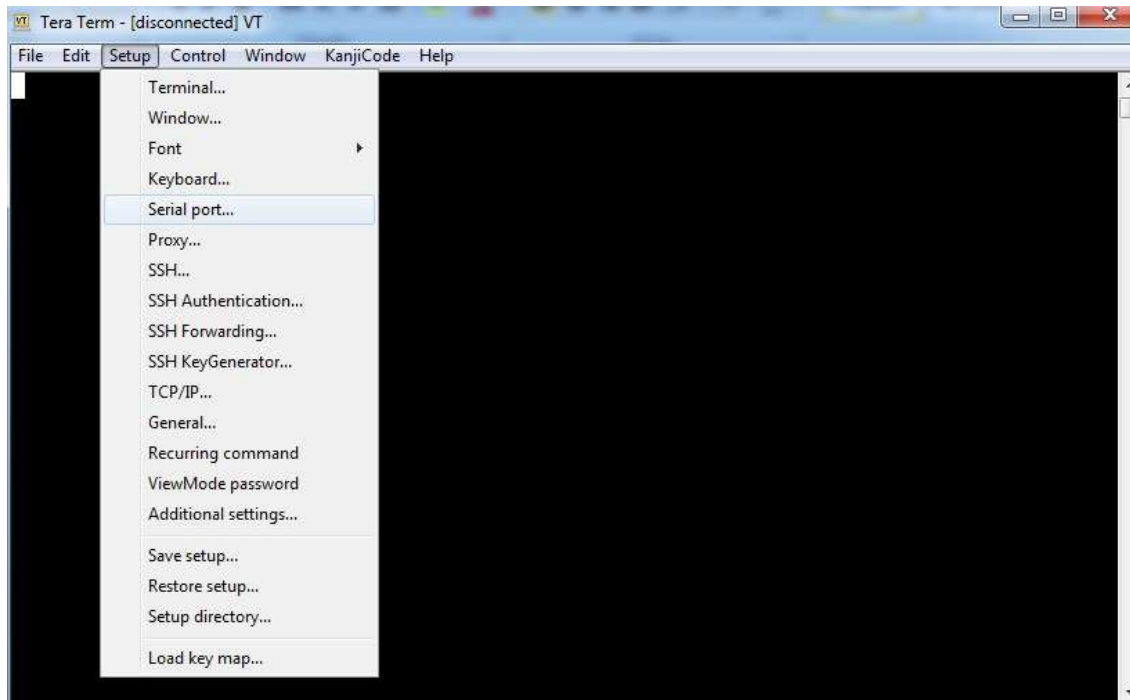
You will need an USB-SERIAL adapter, for example PL2303 3.3v and a Terminal program, like TeraTerm.

Start TeraTerm and finish initial setup

Choose Serial connection and choose the COM port assigned to your USB-UART adapter



In the Setup Menu choose Setup → Serial port



Set up the Serial port as in the picture below (with your correct serial port number of course...)



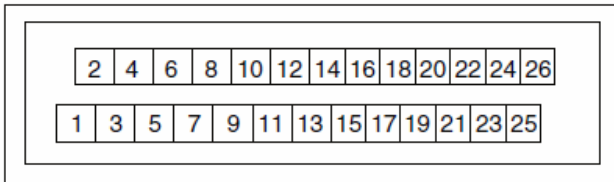
You have to connect just three wires (GND, TX, RX) from adapter to your head unit to get access to the console where you can change BSP settings to restore boot process.

TX from adapter - to EXTOMX (16)

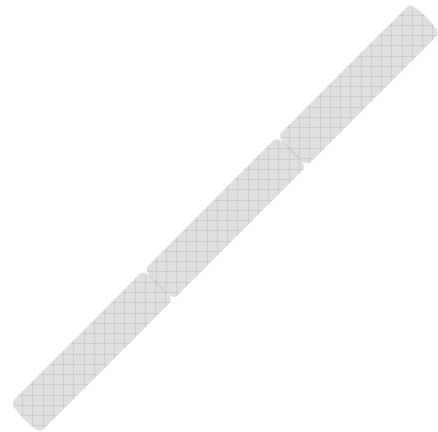
RX from adapter - to MXTOEX (17)

GND from adapter - GND (26)

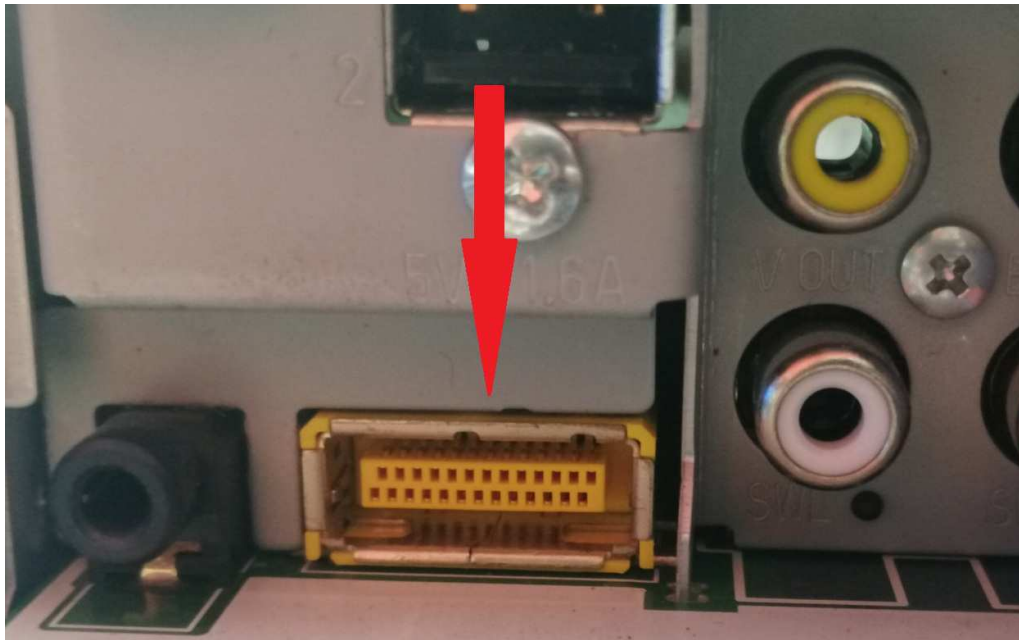
Ⓑ RGB Input



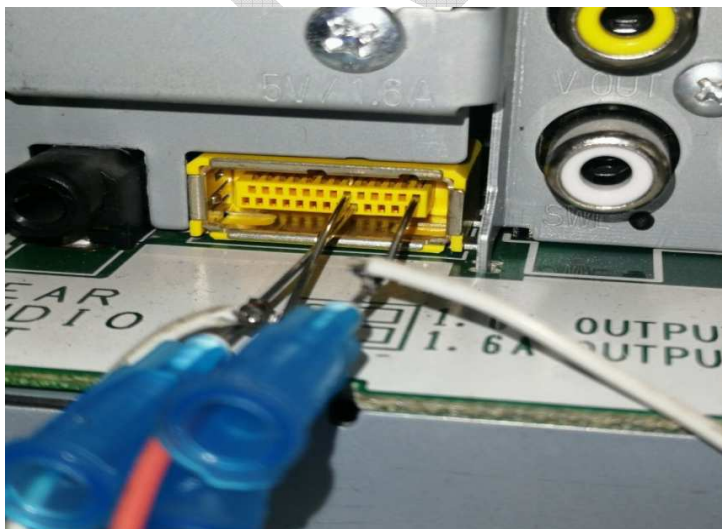
	terminal name		terminal name
1	CCR	14	NC
2	CCG	15	NC
3	CCB	16	EXTOMX
4	CCSYNC	17	MXTOEX
5	GNSIG	18	HYOKA
6	NC	19	DSEN
7	NC	20	TVON
8	NC	21	NC
9	ASENBO	22	MONON
10	CCAUL	23	NC
11	CCAUR	24	NC
12	GNDU	25	NC
13	NC	26	GNDD



RGB Input / UART port



You can use a syringe needles to connect the RX TX and Ground wires from adapter to the unit. Use a small needles and be careful not to damage the connector!



Connect the adapter and start TeraTerm program.

If your settings and connection are OK you will see this -

```
COM5 - Tera Term VT
File Edit Setup Control Window KanjiCode Help
Out: serial
Err: serial
**** display DDR calibration result ****
*****
Display result(register) of WriteLeveling

  MMDC registers updated from WriteLeveling
  MPWLDECTRL0 (0x021b080c) = 0x003C0043
  MPWLDECTRL1 (0x021b0810) = 0x0027002C
*****
Display result(register) of DDR calibration

  MMDC registers updated from calibration

  Read DQS Gating calibration
  MPDGCTRL0 PHY0 (0x021b083c) = 0x421B020F
  MPDGCTRL1 PHY0 (0x021b0840) = 0x016D0170

  Read calibration
  MPRDDLCTL PHY0 (0x021b0848) = 0x42434B46

  Write calibration
  MPWRDLCTL PHY0 (0x021b0850) = 0x413E3F40
*****

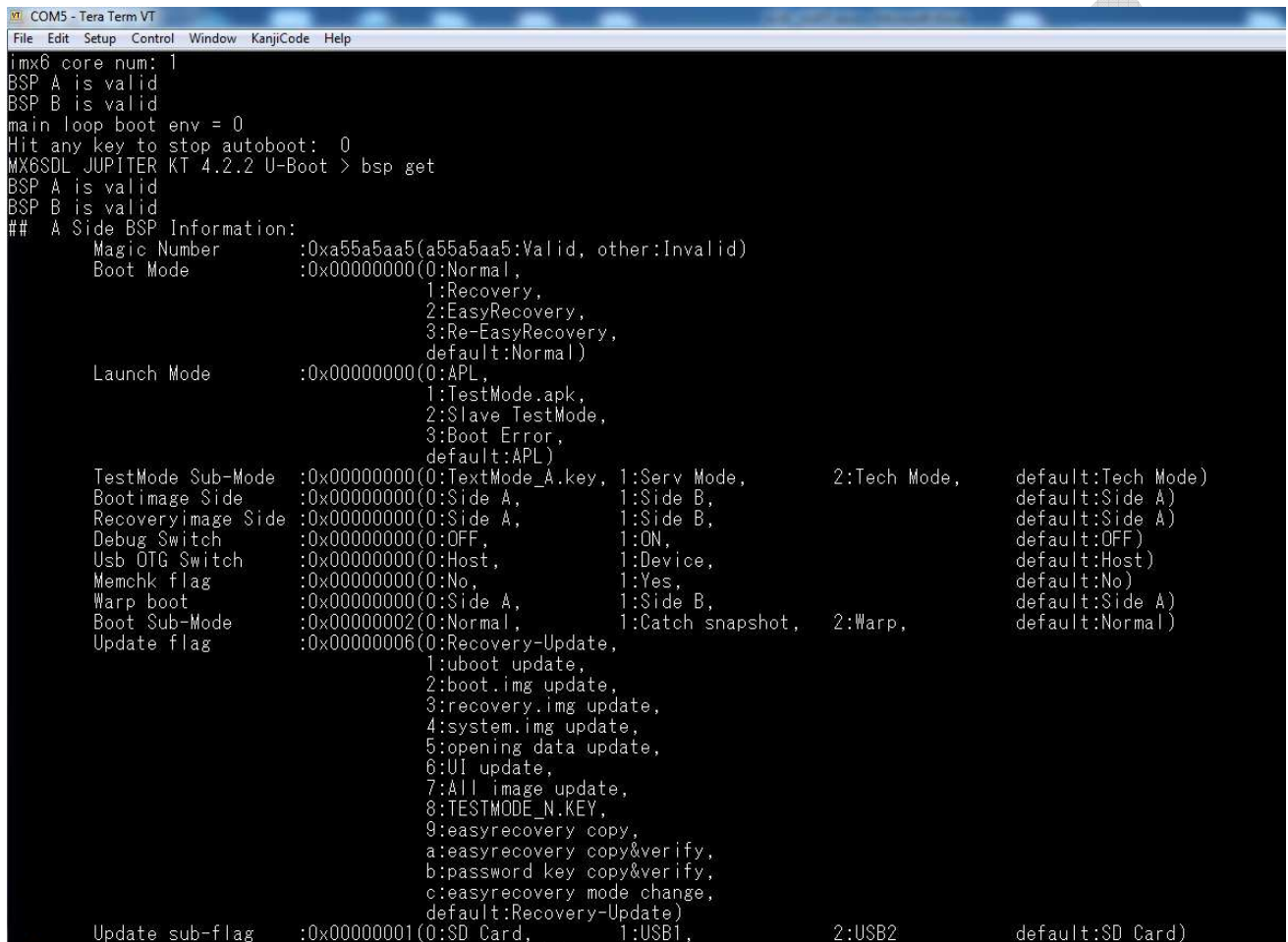
Net: got MAC address from IIM: 00:00:00:00:00:00
FECO [PRIME]
BSP A is valid
BSP B is valid
mx6 core num: 1
BSP A is valid
BSP B is valid
warp boot side A

Lineo Warp!! 4.0.0 (Jupiter14 1.0.1) Tue Jan 14 13:23:03 JST 2014
SDHC2 'SU08G' 7580MB 4bit 50.0Mbit/s (HS) block: 512 sect: 127 spec: 3
Snapshot ID : 71375f2c
Snapshot total size : 0x11e4a440 compressed size : 0x02cd12d0
--- Read Snapshot ---
00800000
```

You will have a few seconds at the beginning to press any button to break the launch of the main software and then another 20 seconds to enter a command.

If you miss the moment just restart the unit by cutting the power or press the Reset button (if you are lucky and there is one, some models don't have)

Type *bsp get* and hit ENTER. This is important to see and have the current values of the BSP. You will get something like this -



```
COM5 - Tera Term VT
File Edit Setup Control Window KanjiCode Help
imx6 core num: 1
BSP A is valid
BSP B is valid
main loop boot env = 0
Hit any key to stop autoboot: 0
MX6SDL JUPITER KT 4.2.2 U-Boot > bsp get
BSP A is valid
BSP B is valid
## A Side BSP Information:
  Magic Number      :0xa55a5aa5(a55a5aa5:Valid, other:Invalid)
  Boot Mode         :0x00000000(0:Normal,
                        1:Recovery,
                        2:EasyRecovery,
                        3:Re-EasyRecovery,
                        default:Normal)
  Launch Mode      :0x00000000(0:APL,
                        1:TestMode.apk,
                        2:Slave TestMode,
                        3:Boot Error,
                        default:APL)
  TestMode Sub-Mode :0x00000000(0:TextMode_A.key, 1:Serv Mode,      2:Tech Mode,      default:Tech Mode)
  Bootimage Side   :0x00000000(0:Side A,      1:Side B,      default:Side A)
  Recoveryimage Side :0x00000000(0:Side A,      1:Side B,      default:Side A)
  Debug Switch     :0x00000000(0:OFF,      1:ON,      default:OFF)
  Usb OTG Switch   :0x00000000(0:Host,      1:Device,      default:Host)
  Memchk flag      :0x00000000(0:No,      1:Yes,      default:No)
  Warp boot        :0x00000000(0:Side A,      1:Side B,      default:Side A)
  Boot Sub-Mode    :0x00000002(0:Normal,      1:Catch snapshot, 2:Warp,      default:Normal)
  Update flag      :0x00000006(0:Recovery-Update,
                        1:uboot update,
                        2:boot.img update,
                        3:recovery.img update,
                        4:system.img update,
                        5:opening data update,
                        6:UI update,
                        7:All image update,
                        8:TESTMODE_N.KEY,
                        9:easyrecovery copy,
                        a:easyrecovery copy&verify,
                        b:password key copy&verify,
                        c:easyrecovery mode change,
                        default:Recovery-Update)
  Update sub-flag  :0x00000001(0:SD Card,      1:USB1,      2:USB2,      default:SD Card)
```

Copy, Paste and Save the current values of the BSP with any text redactor program.

If you are familiar with, you can change the values one by one BUT YOU MUST UNDERSTAND WHAT ARE YOU DOING! YOU CAN BRICK THE UNIT AT ALL!

Before making any changes better write me with your current BSP settings attached...

If you changed your card with new one and your unit still did not start properly and stays on << Pioneer Loading >> type *bsp init* then hit ENTER

RESET the unit!

Here is the moment of truth... Will the unit start properly? It is very likely it will take significant time for the unit to boot but the most important at this time is to work correct.

If unit starts and works, but booting takes ages it is time to do some fine settings manually. Go again in the console, stop the booting process and type *bsp set -s 2*




```
QMS-Tera Term V1
Edit Setup Control Window KanjiCode Help
SDL JUPITER KT 4.2.2 U-Boot > help bsp
- get bsp info, or set bsp info

ge:
Usage:
init - init bsp information to init value
get - get bsp information from nor flash
passwd <passwd> - set sd card password (16bytes)
set <item> <value> - set bsp information to nor flash

m: set boot mode
value
0: Normal
1: Recovery
2: EasyRecovery(CopyDevice)
3: Re-EasyRecovery

l: set launch mode flag
value
0: APL
1: TestMode.apk
2: Slave TestMode
3: Boot Error

t: set TestMode Sub Mode
value
0: Tech Mode
1: Serv Mode
2: TestMode_A.key

b: set bootimage active side flag
value
0: Side A
1: Side B

r: set recoveryimage active side flag
value
0: Side A
1: Side B

d: set debug on/off switch
value
0: OFF
1: ON

u: set usb otg switch
value
0: Host
1: Device

c: set memchk flag
value
0: No
1: Yes

w: set warp boot active side flag
value
0: Side A
1: Side B

s: set boot sub mode flag
value
0: Normal
1: Catch snapshot
2: Warp

f: set update flag
value
0: Recovery-Update
1: uboot update
2: boot.img update
3: recovery.img update
4: system.img update
5: opening data update
6: UI update
7: All image update
8: TESTMODE_N.KEY
9: easyrecovery copy
10: easyrecovery copy&verify
11: password key copy&verify
12: easyrecovery mode change

sf: set update sub flag
value
0: SD Card
1: USB1
2: USB2

uif: set ui update flag
value
0: non-updating
1: updating

SDL JUPITER KT 4.2.2 U-Boot >
root 2009.08 (Jan 06 2014 - 16:32:44)
```

This will activate WARP. It is like a hibernate function, when WARP is activated the unit starts much faster.

That's all!

Hope this will help to get your unit back to life!

