

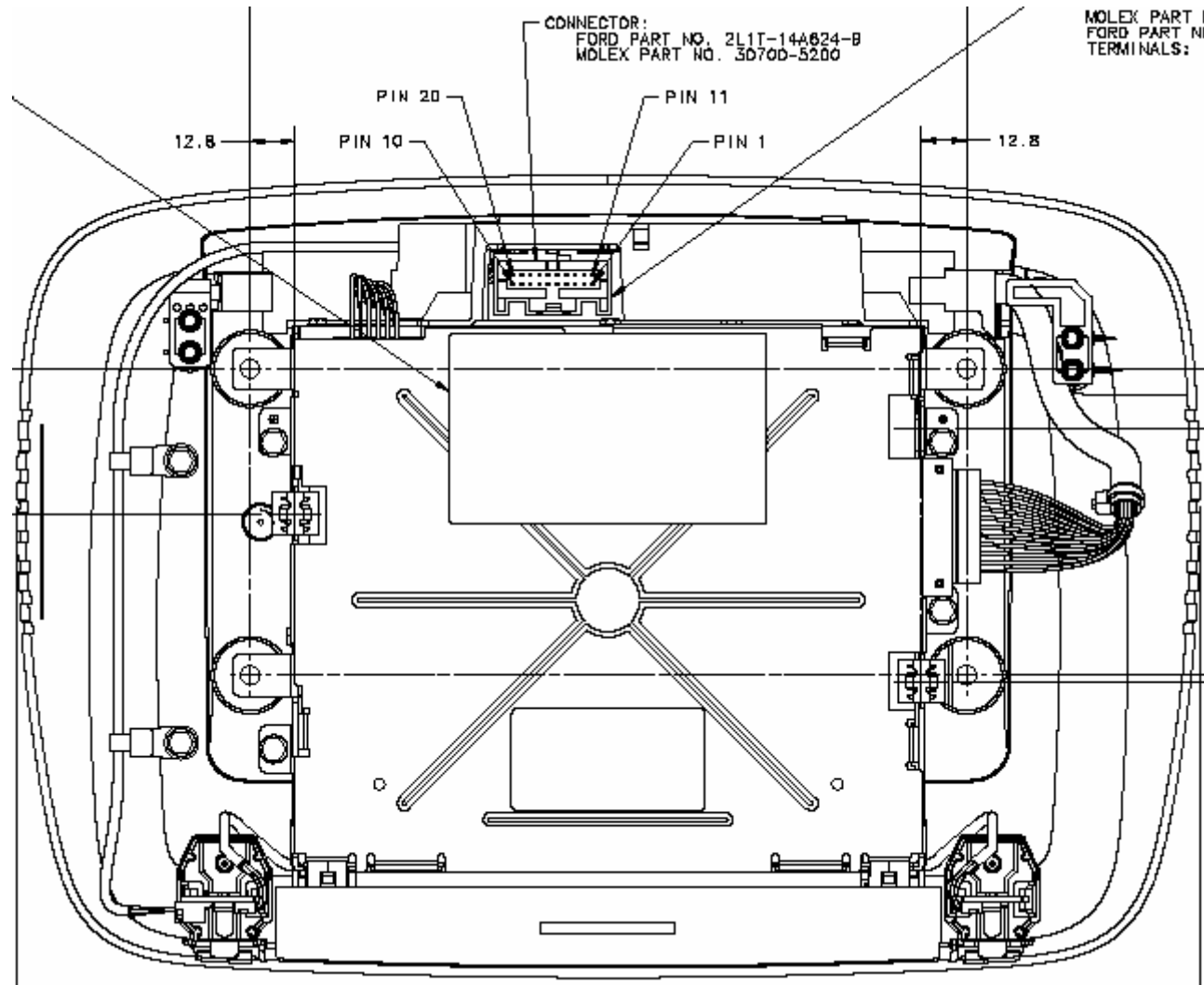


Ford Motor Company FES – Family Entertainment System Tech Tips



Delphi Corporation does NOT place comment on vehicle manufacturer warranties nor does it extend any warranties to vehicles or components that have been modified by aftermarket devices or modifications. All Delphi technical tips are intended for use by professional technicians, NOT a "do-it-yourselfer". These tips are written to assist technicians in the diagnostics and repair of vehicles. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job properly and safely.

Delphi Product and Service Solutions





Vehicle Harness

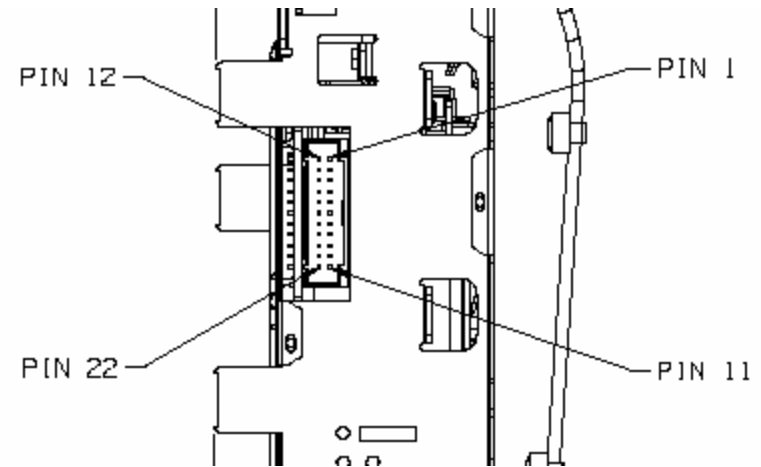
CONNECTOR PINOUT CHART	
PIN NO.	PIN NO.
1	BATTERY
2	ASYS ON
3	PWM DIM IN
4	NO CONNECTION
5	LEFT + AUDIO OUTPUT
6	RIGHT + AUDIO OUTPUT
7	LEFT + AUDIO IN (1R HP)
8	RIGHT + AUDIO IN (1R HP)
9	NO CONNECTION
10	NO CONNECTION
11	ACP A BUS
12	ACP B BUS
13	NO CONNECTION
14	POWER GROUND
15	LEFT - AUDIO OUTPUT
16	RIGHT - AUDIO OUTPUT
17	LEFT - AUDIO INPUT (1R HP)
18	RIGHT - AUDIO INPUT (1R HP)
19	NO CONNECTION
20	NO CONNECTION



DVD Side Connector

Common consumer and audio shop question;

- Q. Can I add extra video screens to my vehicle's DVD player?
- A. No, adding screens without a high impedance input video amplifier could overload your DVD's video output driver. Besides, any modifications to your system would most likely void your manufacturer's warranty.

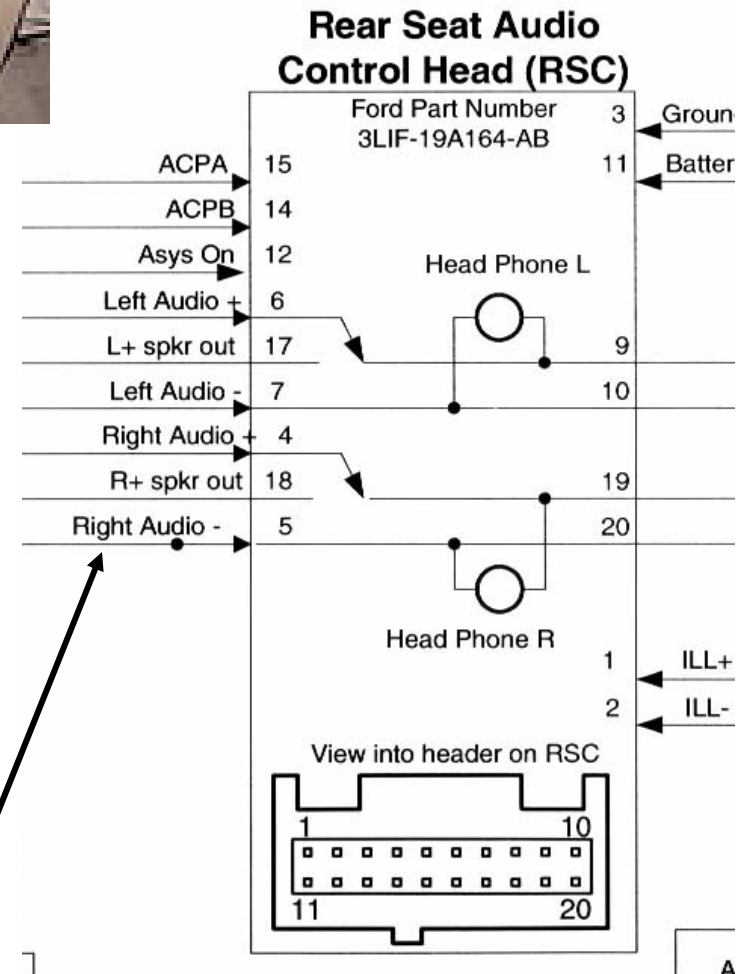


DISPLAY CONNECTOR SIGNAL NAME	PIN NUMBER	DISPLAY CONNECTOR SIGNAL NAME	PIN NUMBER
BATTERY 2 RETURN	1	FILTERED BATTERY 1	12
BATTERY 2 RETURN	2	FILTERED BATTERY 1	13
SHIELD GROUND	3	FILTERED BATTERY 1	14
FILTERED BATTERY 2	4	BATTERY 1 RETURN	15
FILTERED BATTERY 2	5	BATTERY 1 RETURN	16
THERMISTER OUTPUT- 10K @ +25C	6	BATTERY 1 RETURN	17
VIDEO GROUND	7	LCD PWM DIM	18
THERMISTER OUTPUT+ 10K @ +25C	8	DISPLAY MODE 1	19
VIDEO GROUND	9	DISPLAY MODE 2	20
VIDEO	10	DISPLAY MODE 3	21
VIDEO GROUND	11	DISPLAY MODE 4	22



Case Study # 1

- 1/ New vehicle complaint; no sound in I/R headphones.
- 2/ Dealer tech can move headphones to a known good vehicle. They work. Tech can move DVD to known good vehicle. It works.
- 3/ Root cause; vehicle harness mis-build. Audio for headphones is routed from DVD to radio, then from radio to RSC, then back into the DVD for headphone use. Wires were not present in harness for this function

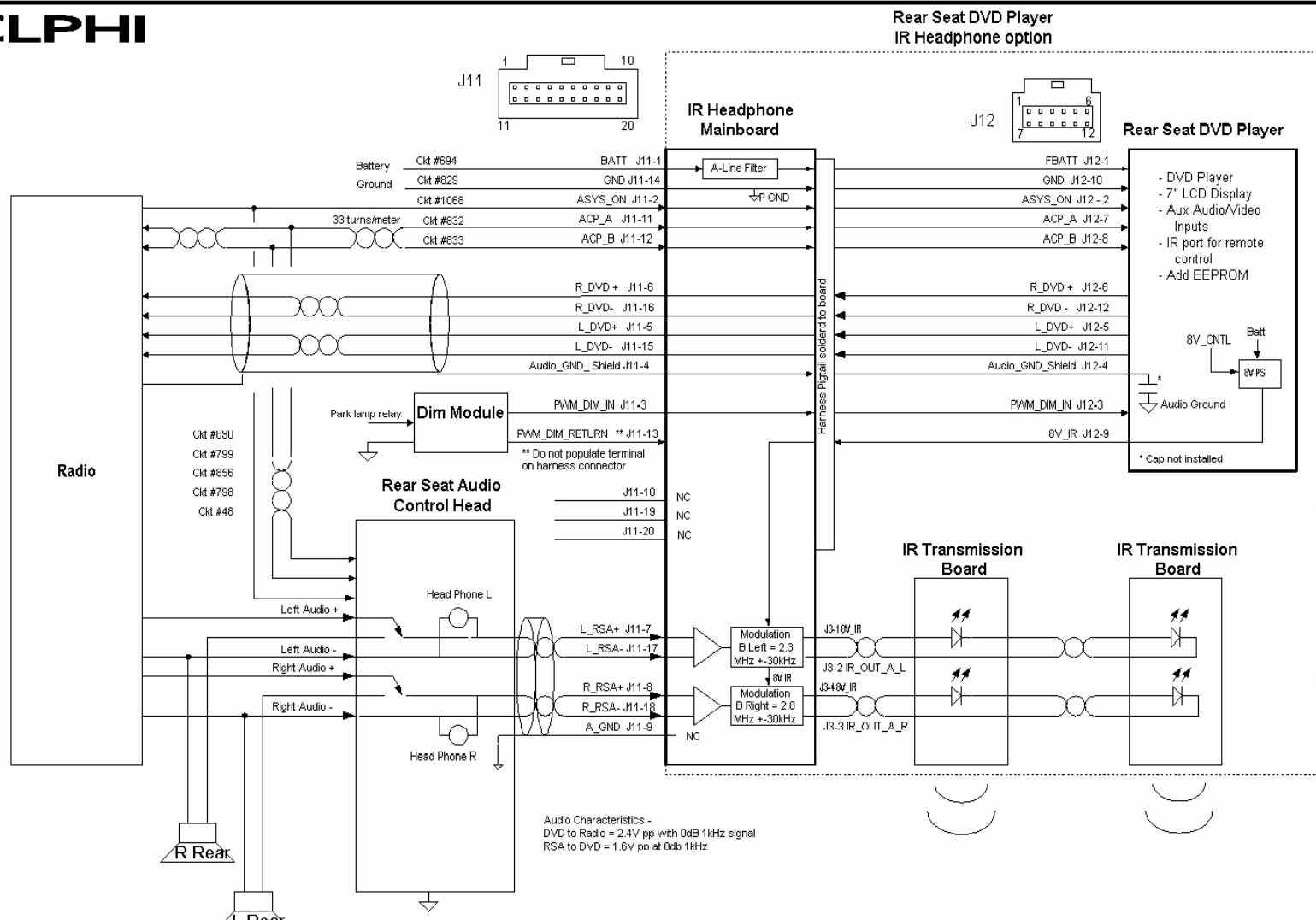




2003.5 U222/228 I/R Headphone DVD

FSB-10006622-001.03

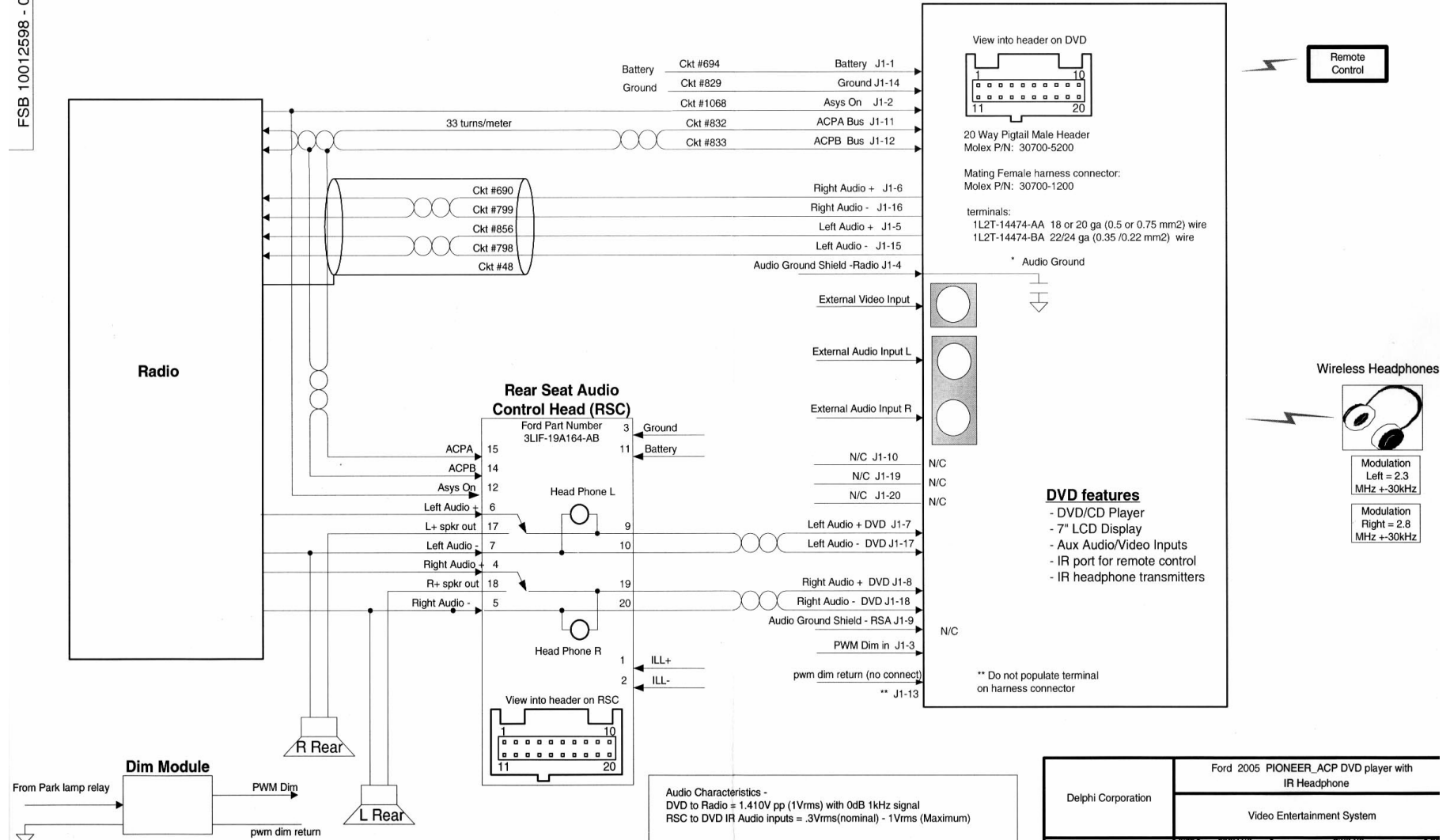
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FSB 10012598 - 001

Rear Seat DVD Player IR Headphone option



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Case Study # 2

1/ New vehicle complaint; no sound in I/R headphones and / or remote control inoperative.

2/ Dealer can't make headphones or remote control work the DVD player. Tech can install a DVD from a known good vehicle and still does not work.

3/ Root cause; wrong headphones and /or remote controls can be placed in vehicle at the time of delivery. Ford uses more than 1 vender for audio / visual accessories. Make sure the correct headphones and remote control and in the vehicle.





Case Study # 3

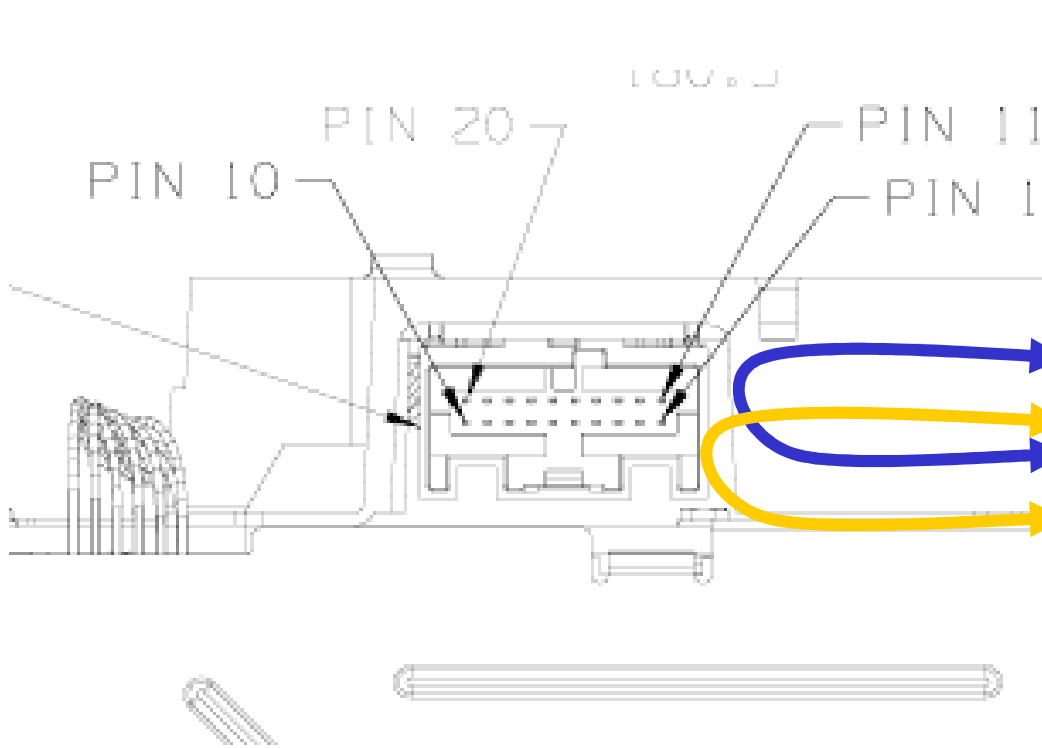
1/ Used vehicle complaint; no sound in I/R headphones, inoperative RSA.

2/ Dealer observes an aftermarket navigation radio in the vehicle.

3/ Root cause; factory radio needs to be installed in the vehicle along with the factory RSA (Rear Seat Audio) for the DVD's audio output wiring to be connected back to into the DVD player's audio IR inputs.

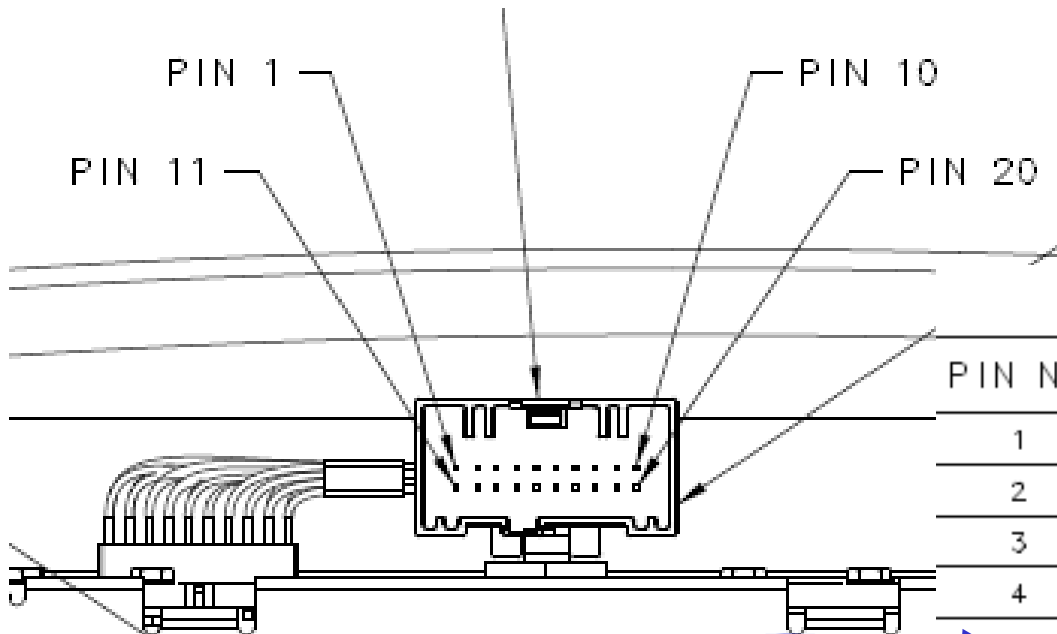
4/ Repair; No repair has been authorized although in theory, the following pages show a work around which may be attempted after successful factory validation has been performed.





POWER CONNECTOR SIGNAL NAME	PIN NUMBER
BATTERY Connect to Fused 12 Volts	1
ASYS ON to Fused Switched 12 Volt	2
PWM DIM IN	3
N/C (RES FOR RADIO AUDIO SHIELD GRD)	4
LEFT + AUDIO OUTPUT	5
RIGHT + AUDIO OUTPUT	6
LEFT + AUDIO INPUT (LR HP)	7
RIGHT + AUDIO INPUT (RR HP)	8
AUDIO GROUND SHIELD (RES) to Chassis Ground	9
N/C	10
ACP A BUS	11
ACP B BUS	12
N/C (RES FOR PWM DIM RETURN)	13
POWER GROUND to Chassis Ground	14
LEFT - AUDIO INPUT	15
RIGHT - AUDIO INPUT	16
LEFT - AUDIO INPUT (LR HP)	17
RIGHT - AUDIO INPUT (RR HP)	18
N/C	19
N/C	20
CONNECTOR: FORD P/N 2L1T-14A624-B (REF MOLEX P/N 30700-5200)	
MATES WITH: FORD P/N 2L1T-14A464-D (REF MOLEX P/N 30700-1200)	
TERMINALS: FORD P/N 1F1T-14474-L (REF TYCO P/N 1326030-1)	

To Operate Ford Family Entertainment System w/o Factory Radio
 Example p/n 12234760



CONNECTOR PINOUT CHART

PIN NO.	PIN NO.
1	BATTERY Connect to Fused 12 Volts
2	ASYS ON Connect to Fused Ign. Switched 12 Volt
3	PWM DIM IN
4	N/C (RES FOR RADIO AUDIO SHIELD GROUND)
5	LEFT + AUDIO OUTPUT
6	RIGHT + AUDIO OUTPUT
7	LEFT + AUDIO IN (IR HP)
8	RIGHT + AUDIO IN (IR HP)
9	AUDIO GROUND SHIELD (RSA) to Chassis Ground
10	N/C
11	ACP A BUS
12	ACP B BUS
13	N/C (RES FOR PWR DIM RETURN)
14	POWER GROUND to Chassis Ground
15	LEFT - AUDIO OUTPUT
16	RIGHT - AUDIO OUTPUT
17	LEFT - AUDIO INPUT (IR HP)
18	RIGHT - AUDIO INPUT (IR HP)
19	N/C
20	N/C

To Operate Lincoln Family
Entertainment System w/o
Factory Radio

Example p/n 28036977

