

SERVICE BULLETIN

SUBJECT: Front End (Input) IC's in Models 400II and 700II PC Boards

In the first year production runs of the models 400 and 700 Series Two PL36 PC driver boards we used a TO-99 packaged Fairchild or Signetics LF356 front end BI-FET op amp. This particular IC package was found to cause an unacceptable turn-off "thump" in some amplifiers. We later discovered and used in production a 8-pin mini-DIP packaged LF356 (National) which reduced this thump.

As of about May of 1979 all production runs of the PL36 driver board began using a National LF351 IC (Phase Linear part number 126-0114) which was found to have a better slew rate, slightly lower distortion, and substantially reduced the delayed turn-off thump. They are also cheaper.

If a model 400 or 700 Series Two amplifier has excessive delayed turn-off noise the front end IC's should be replaced with the LF351. These are a direct retrofit device and require no additional modification to the PC board.

PHASE LINEAR SERVICE DEPARTMENT  
20121 48th Ave. West  
Lynnwood, WA 98036  
(206) 774-8848  
(206) 774-3571

# *Phase Linear Corporation*

20121-48 Avenue West  
Lynnwood, Washington 98036 USA  
206 774-3571 TWX 9104492851

Service Bulletin 9/24/80

Subject: Model 400 II and 700 II op-amp supply dropping resistors

Early Series Two amplifiers Models 400 II and 700 II used the type LF356 input op-amp which required relatively high supply current. Later and current production runs use the LF351 op-amp which requires less supply current. Because of this change in current demand the dropping resistors (R1 and R2) were changed to 7.5 Kilohms/5 watt (previously 2.4 Kilohm/5 watt for Model 700 II and 1.8 Kilohms/5 watt for Model 400 II).

The 2.4 Kilohm and 1.8 Kilohm resistors are no longer stocked, therefore, if either resistor requires replacement both the resistors and the op-amp (if originally fitted with LF356's) should be changed to 7.5 Kilohms/5 watt and LF351's.

NOTE: An added benefit to this change is that the LF351 IC has a much lower turn-off transient.