

SERVICE LETTER

SUBJECT: VENDOR SERVICE BULLETINS

All Operators

Date: 03 March 1995

The attention of all PC-12 Operators is drawn to the subject Service Bulletins (SB Nos: 129-1-1100-27-01 and KCP 220-7) which are supplied in Annexes A and B of this letter.

The components addressed are respectively:

- Pitch Trim Actuator Vendor P/N: 129-1-1100) {Pilatus P/N: 978.73.14.201}.
- Flight Computer (Vendor P/N: 065-0064-0015) {Pilatus P/N: 985.92.03.103}.

Pilatus Aircraft Ltd. advises that both these Service Bulletins should be adopted in order to improve the noise immunity of the aircraft.

Any specific queries concerning this subject should be addressed to the Vendors, as given on the front page of each Service Bulletin.

Should any difficulty be encountered, inquiries can be made to the following address:

PILATUS AIRCRAFT LTD.
CUSTOMER LIAISON MANAGER.
CH-6370 STANS,
SWITZERLAND.

Tel: + 41-41-636 509
Fax: + 41-41-613 351

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Annex A to Pilatus Service Letter No: PC-12 002

Elektro-Metall Service Bulletin No: 129-1-1100-27-01)

(10 Pages)

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ELEKTRO-METALL
Postfach 10 03 60
85003 Ingolstadt
Telephone: 0841 96510
Telefax: 0841 68722
Telex: 55 766

ELEKTRO-METALL
Service Bulletin

ATA System: 27

T I T L E : Flight Controls-Pitch Trim Actuator-Introduction
of Transient Suppression Diodes to Reduce Switch
off Peaks

1. PLANNING INFORMATION

A. Effectivity

- (1) This Service Bulletin is applicable to all Pitch Trim Actuators, P/N 129-1-1100.
- (2) Aircraft: Pilatus PC-12.
- (3) After modification the actuator has the identification P/N 129-1-1100 Amendt 1.

B. Reason

At switching off of Pitch Trim Actuator P/N 129-1-1100 during pitch trim operations the actuator induces high voltage and current peaks on the supply lines.

Therefore it is recommended to introduce two transient suppression diodes in the actuator to control the switch off peaks.

C. Description

Accomplishment of this Service Bulletin consists of:

- (1) Remove actuator cover.
- (2) Install the two diode kits.
- (3) Reinstall the actuator cover.
- (4) Install Amendt 1 plate for identification.
- (5) Functional test.

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D. Compliance

Recommended.

E. Approval

This Service Bulletin contains no modification information that revises the approved configuration and therefore does not require governmental or other regulatory agency approval.

F. Manpower

Maximum 2 hours for modification.

G. Material - Cost and Availability

- (1) Material: Transient Suppression Diode Kit.
P/N 129-1-4438

Customer should submit a purchase order quoting this Service Bulletin to:

ELEKTRO-METALL
Postfach 10 03 60
85003 Ingolstadt
Germany
Tel.: 0841 96510
Fax: 0841 68722

(2) Cost and Availability

The Transient Suppression Diode Kit P/N 129-1-4438 is free of charge.

Availability is upon receipt of order.

H. Tooling - Price and Availability

None.

I. Weight and Balance

Minor change.

J. Electrical Loads Data

Electrical power consumption is not affected.

K. Publications Affected

None.

2. ACCOMPLISHMENT INSTRUCTIONS

A Modification

- Drive actuator in fully extended position by supplying +28 VDC between pin E and D on connector PL1 (pin E positive potential).
- With a knife try to remove the sealing, on all four sides, between the endcover and the actuator main housing, see figure 1.
- Remove the four screws position 30, see figure 2.
- Remove carefully the two endcovers position 27 and 28, see figure 2.
- Solder the Transient Suppression Diode Kit P/N 129-1-4438 on the diodes legs.
Before installation see figure 3. After installation see figure 4.
For electrical diagram see figure 5 before installation and figure 6 after installation.
- Reinstall endcover. Please check that no wires are damaged.
- Reinstall screws position 30 shall be torqued with 3,0 +/- 0,5 Nm.
- Seal the gap between endcover and main cover with Stabond C111.
- Install the amendt 1 label beside the actuator nameplate. Please make sure that the actuator surface is cleaned before installation.

B Functional Test after Installation

To check correct function of the actuator after installation of the diode kit perform the following tests:

- Drive actuator to fully retracted position by (on Plug 1) supplying +28 VDC to pin D, pins E and F grounded.
- Drive actuator to fully extended position by (on Plug 1) supplying +28 VDC to pin E, pins D and F grounded.
- Drive actuator to fully retracted position by (on Plug 2) supplying +28 VDC to pin D, pins E and F grounded.
- Drive actuator to fully extended position by (on Plug 2) supplying +28 VDC to pin E, pins D and F grounded.

3. MATERIAL INFORMATION

The Transient Suppression Diode Kit P/N 129-1-4438 consists of two transient suppression diodes (SA 30CA) connected to electrical wires and prepared for easy installation in the actuator. The diodes are protected by shrink sleeves. The kit also includes an Amendt plate.

The Transient Suppression Diode Kit P/N 129-1-4438 could be ordered from:

ELEKTRO-METALL Export GmbH
Manchinger Str. 116
85053 Ingolstadt
Germany

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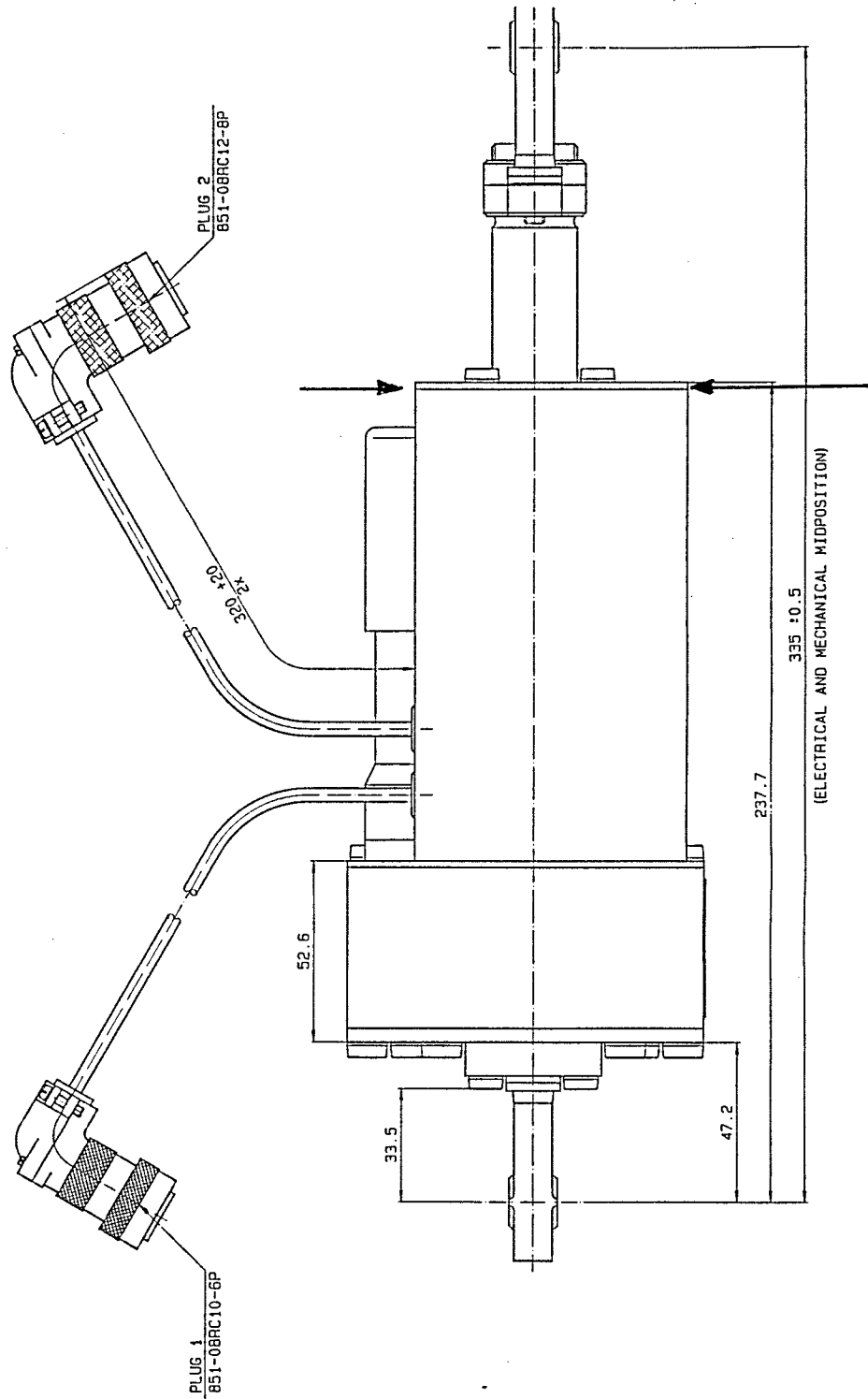


Figure 1

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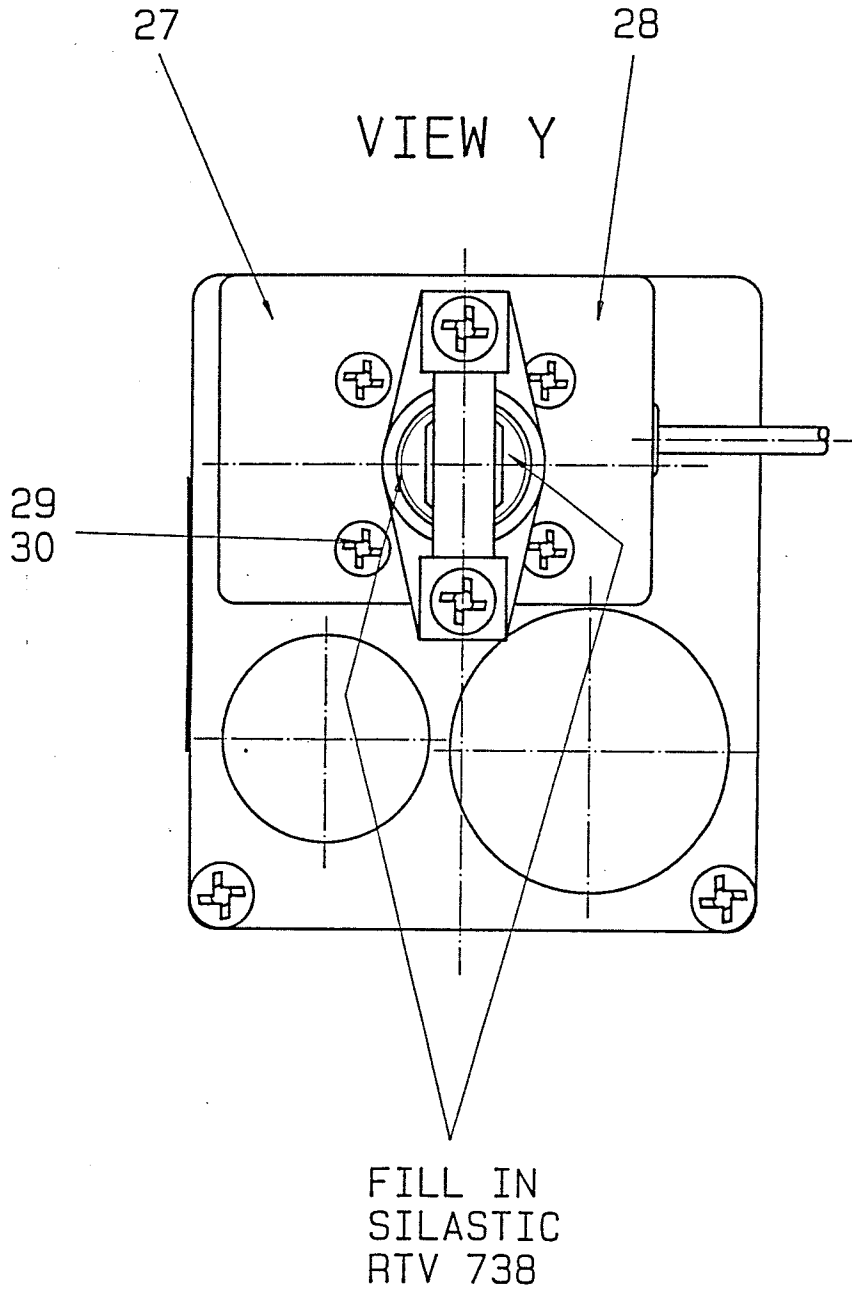


Figure 2

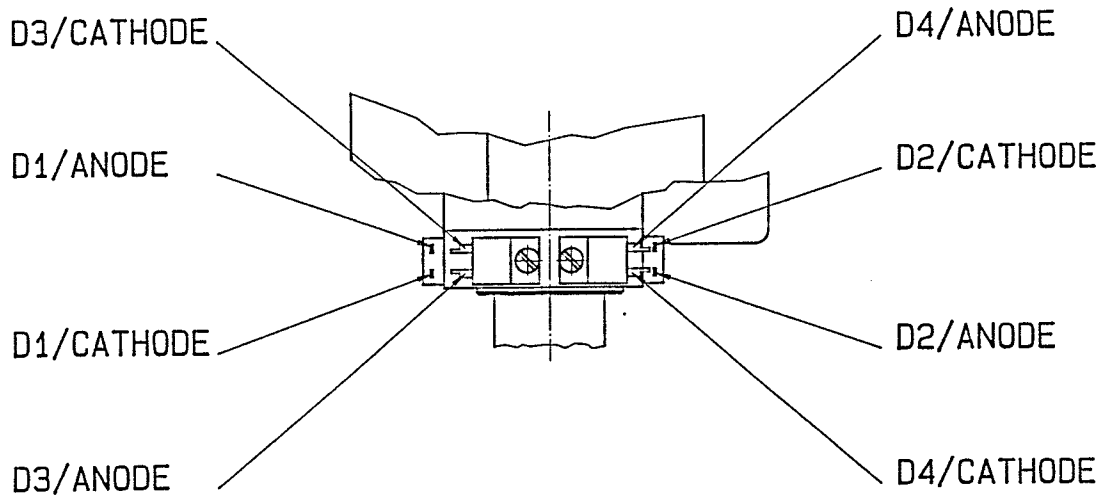
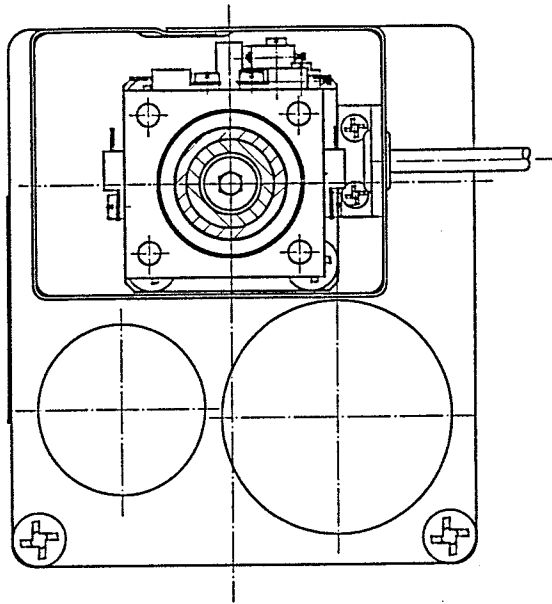


Figure 3

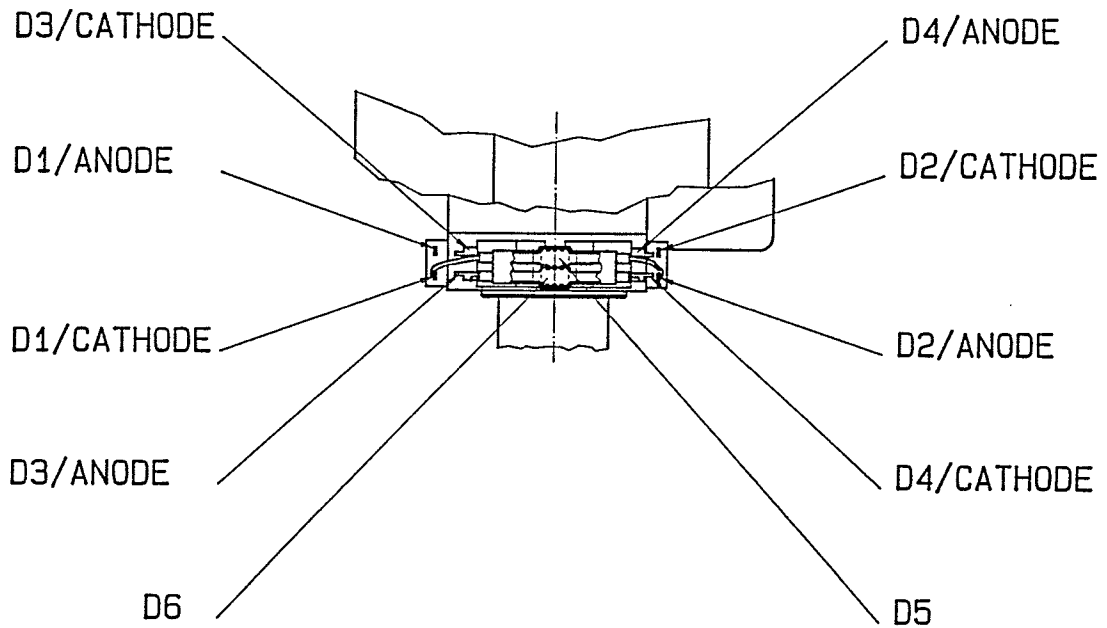
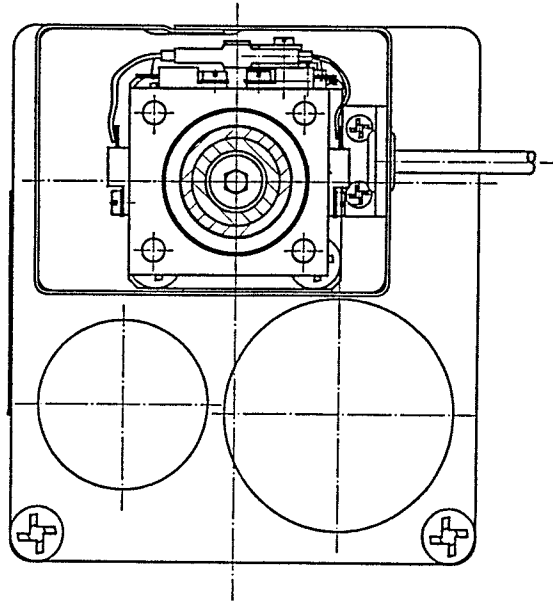


Figure 4

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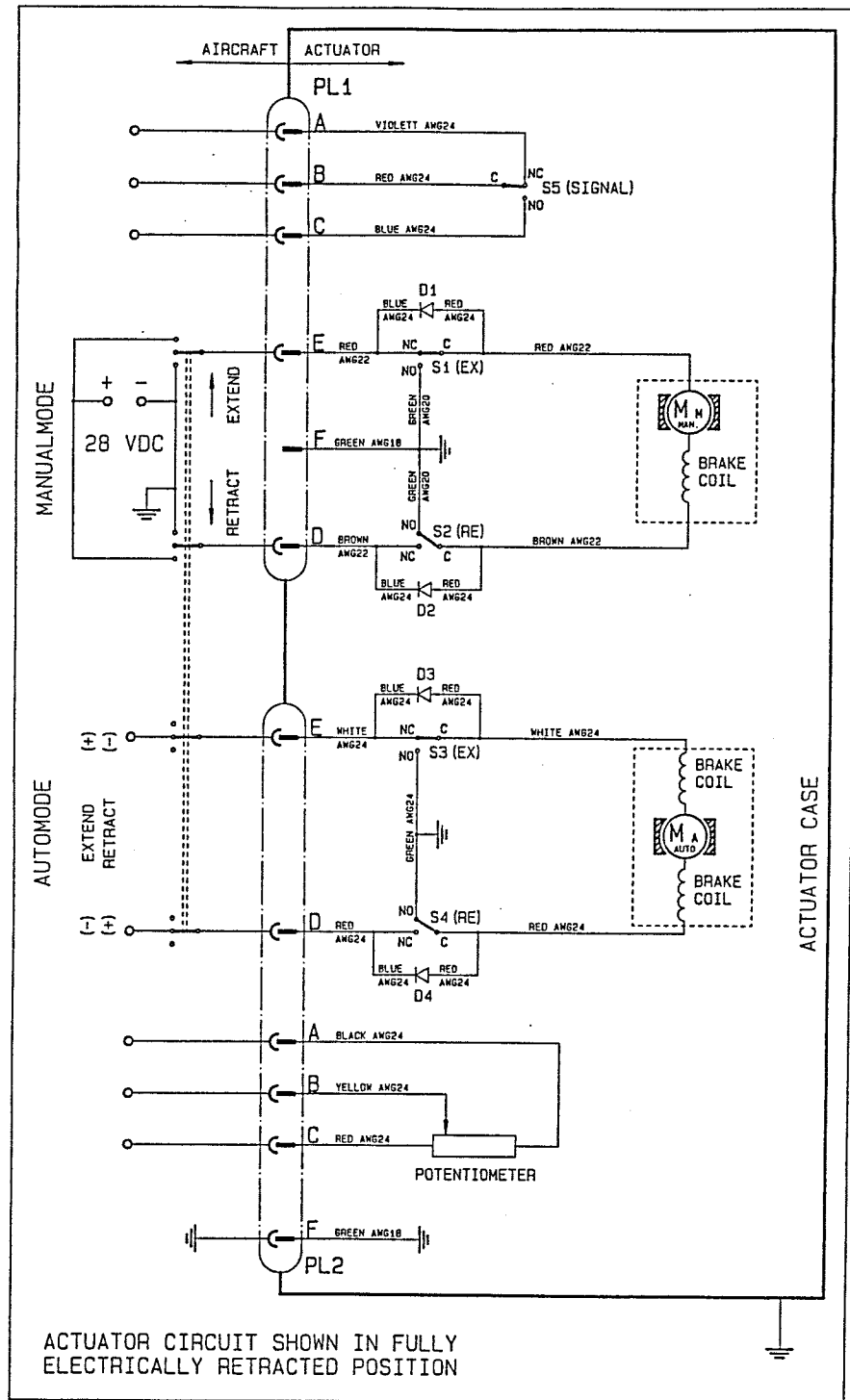


Figure 5

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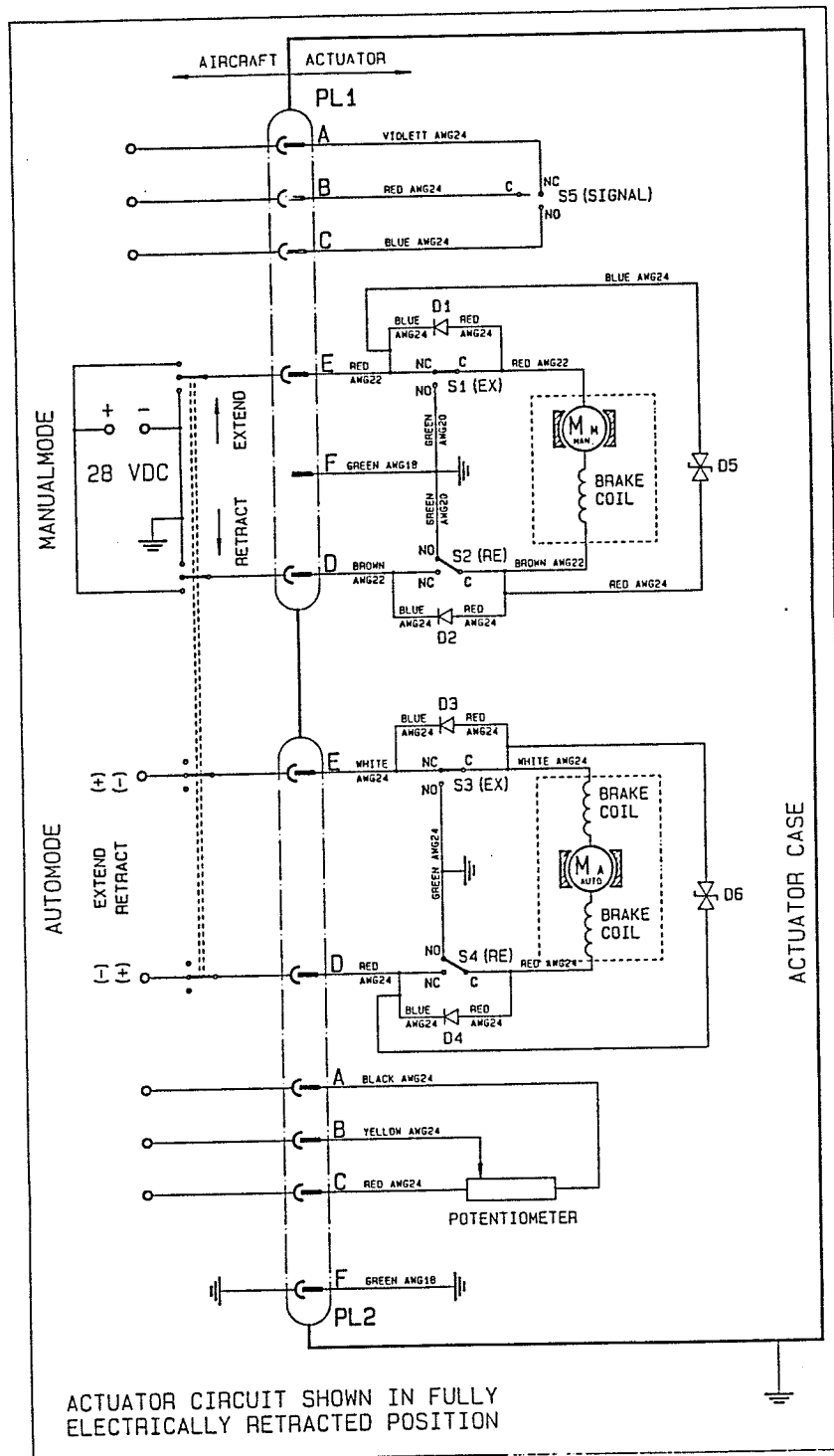


Figure 6

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Annex B to Pilatus Service Letter No: PC-12 002

Bendix/King Service Bulletin No: 220-7)

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BENDIX/KING® Service Bulletin

BULLETIN NO: KCP 220-7
Flight Computer
for KFC 275/325
Flight Control Systems

EFFECTIVITY

KCP 220, P/N 065-0064-05,06,07,08,12,15,20 serial number 1615 and below.

Units with serial numbers above those stated have Mod 7 incorporated during original manufacturing.

REASON

To improve the noise immunity of the mode request serial data bus.

DESCRIPTION

This modification consists of changing one integrated circuit and adding one resistor.

COMPLIANCE

Recommended

WARRANTY INFORMATION

Warranty credit or payment will be issued for this modification if the unit is still under the original new product warranty and the modification is completed by an appropriately rated ALLIEDSIGNAL General Aviation Avionics Service Center. A properly completed warranty claim for 2 hours labor plus parts may be submitted.

APPROVAL

Conforms to FAA TSO C9c and C52a

MANPOWER

Two (2.0) hours labor

REFERENCES

KCP 220 Maintenance/Overhaul Manual, P/N 006-05657-XXXX

MODIFICATION PROCEDURE

1. Refer to the circuit board layout (Ref. Figure 1 or 2) that is applicable to the unit being modified.
2. Replace I229 on the Pitch Board with the new part, P/N 123-00004-0003.
3. Add R2193 P/N 131-00513-0013 per the instructions on the appropriate circuit board layout (Ref. Figures 1 or 2).

TESTING PROCEDURE

Perform a complete final test of the unit.

IDENTIFICATION PROCEDURE

Stamp an "X" on the mod status tag to indicate that Mod 7 is complete.

MATERIAL INFORMATION

All parts necessary to modify one KCP 220 per this Service Bulletin are listed below:

<u>P/N</u>	<u>QTY</u>	<u>DESCRIPTION</u>
123-00004-0003	1	Integrated Circuit
131-00516-0013	1	Resistor 51K EW 5%

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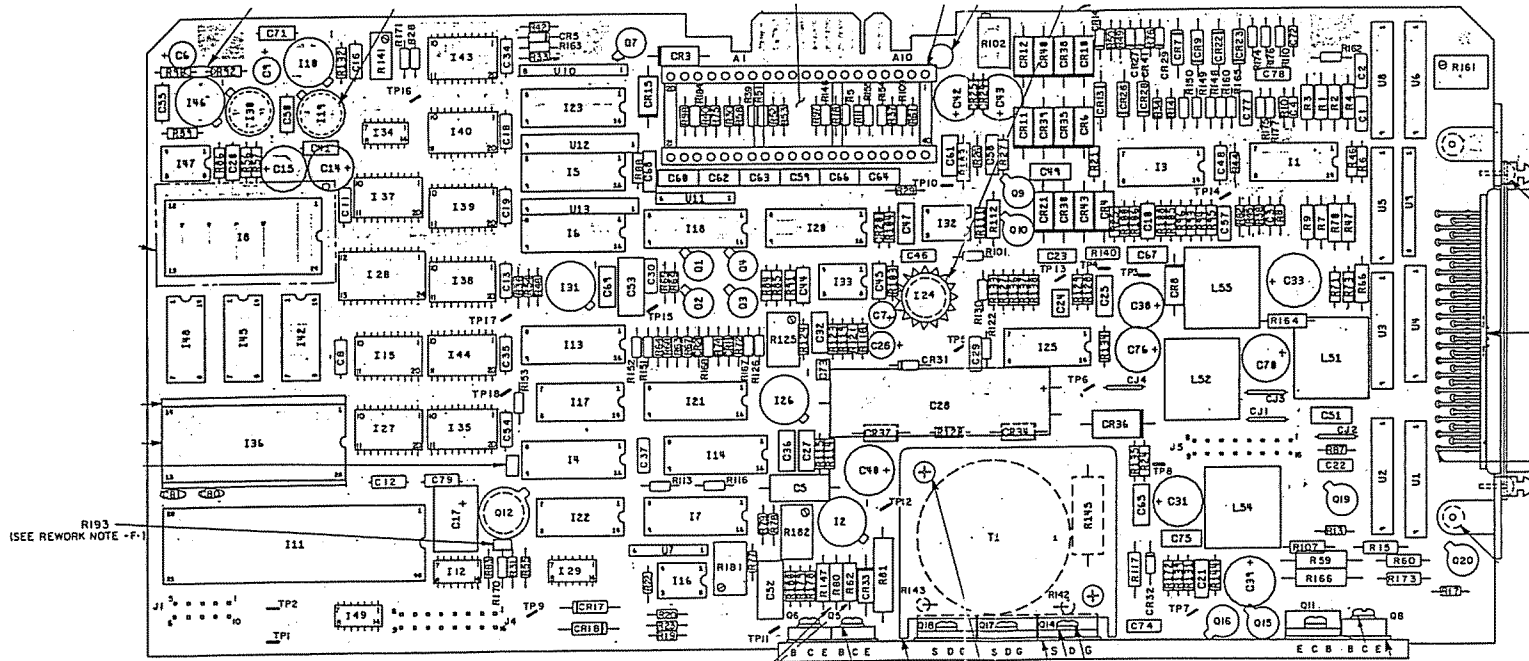
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NOTE: ADD 200 OR 2000 TO ALL REFERENCE DESIGNATORS EXCEPT J2202.

I.E. R23 = R223
R123 = R2123



F. ADD R193 FROM R55 (LEAD CLOSEST TO BD. EDGE) TO C17 (-) LEAD (POWER GROUND). USE 22 AWG TEFLON TUBING (150-00004-0000) AS REQUIRED. (MODE CNTRL DATA GND)

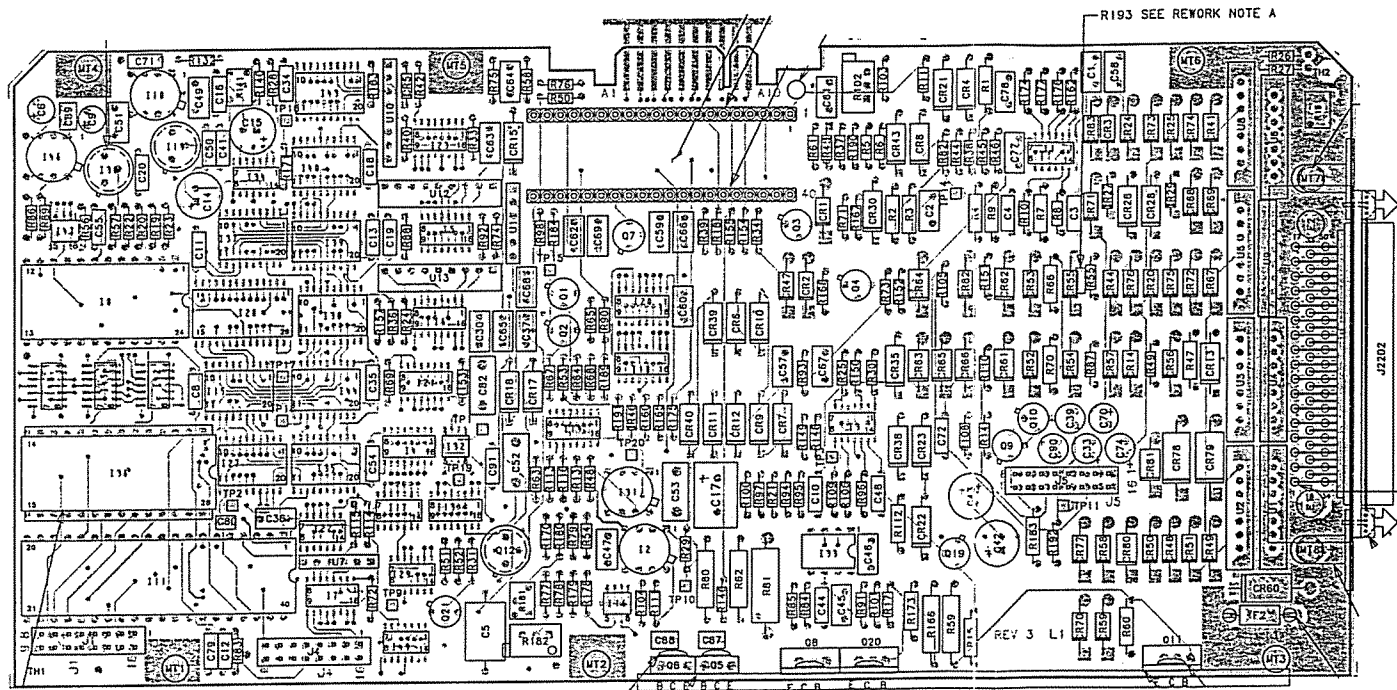
Figure 1
Pitch Board for KCP 220-05,06,07, and 08
300-07894-0000

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REWORK NOTES:
 A. INSTALL R193 FROM CR55 ANODE (NON-BANDED SIDE) TO R55 LEAD CLOSE TO THE CENTER BOARD AREA. USE TEFLON TUBING AS REQUIRED. (MODE CNTRL DATA GND)

Figure 2
 Pitch Board for KCP 220-12,15, and 20
 300-07894-0010

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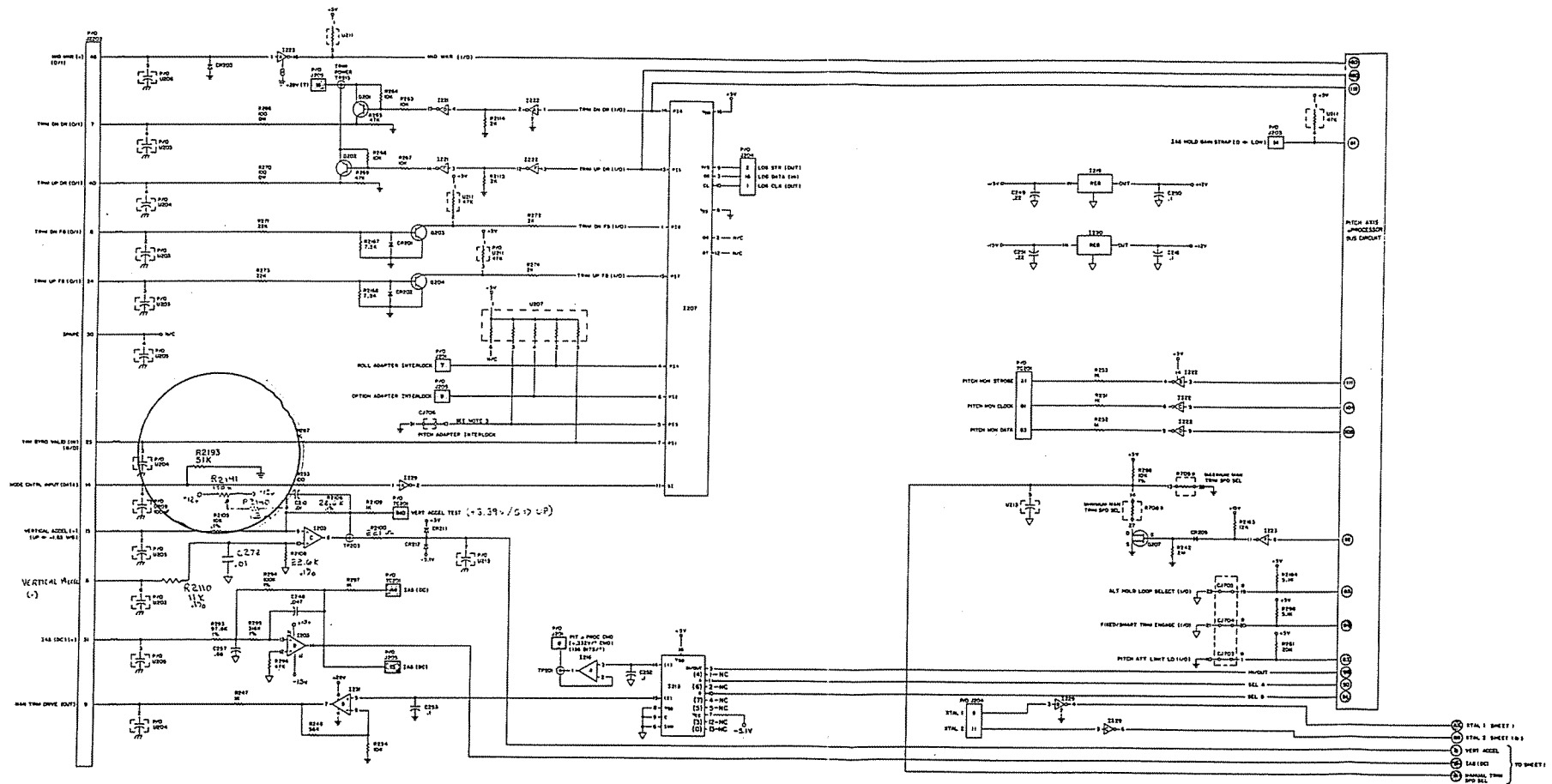


Figure 3
Pitch Board for KCP 220-05, 06, 07, and 08
002-07894-0000 (partial schematic only to change)

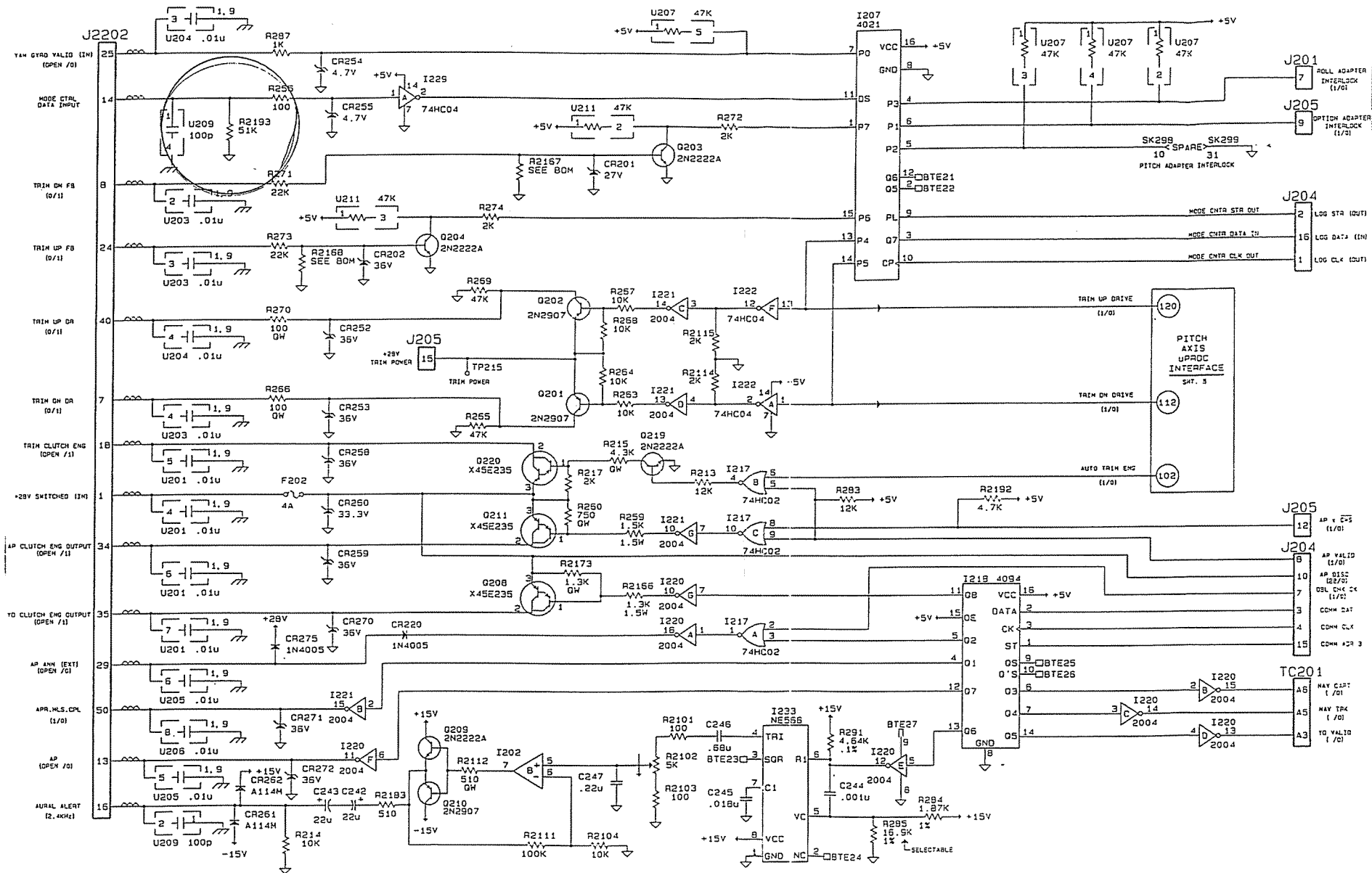


Figure 4
Pitch Board for KCP 220-12,15, and 20
002-07894-0010 (partial schematic only to change)

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