

NAPC07/02

MONITOR MODULE

These are the instructions that were used to create the NAPC07/02 for use with the AMPFET5/10.

FM85015 incorporated changes to delay the transfer to the stand-by RF Driver in the event of a short interruption in the RF drive.



NAPC7 FIELD MODIFICATION
(to prevent transfer to standby rf driver at short interruption in rf drive)

INTRODUCTION

1. Broadcast Corporation of New Zealand have requested that all NAPC7 monitor modules, commencing at contract number BC2086 be modified to prevent transfer to the standby rf driver in the event of a short interruption in the rf drive. This field modification instruction is issued to assure consistency within existing BCNZ AMPFET transmitters.

MODIFICATION INSTRUCTION

2.1 The following hardware changes are to be completed to the printed circuit board assembly. Refer to figure FO-1 for assembly detail.

- (a) Carefully remove one end of R42 at the junction of R42/CR5 from its printed circuit board mounting hole.
- (b) Install one micro pin terminal (Nautel part number HAM16) in the mounting hole for R42 at the junction of R42/CR5.
- (c) Reconnect R42 to the circuit by soldering to micro pin installed in step (b).
- (d) Carefully remove one end of R35 at the junction of R35/U1-14 from its printed circuit board mounting hole.
- (e) Install one micro pin terminal (Nautel part number HAM16) in the mounting hole for R35 at the junction of R35/U1-14.
- (f) Reconnect R35 to the circuit by soldering to micro pin installed in step (e).
- (g) Carefully remove one end of R34 at the junction of R34/ground from its printed circuit board mounting hole.
- (h) Install one micro pin terminal (Nautel part number HAM16) in the mounting hole for R34 at the junction of R34/ground.
- (i) Reconnect R34 to the circuit by soldering to micro pin installed in step (h).
- (j) Carefully remove one end of R53 at the junction of R53/U4-14 from its printed circuit board mounting hole.
- (k) Install one micro pin terminal (Nautel part number HAM16) in the mounting hole for R53 at the junction of R53/U4-14.
- (l) Reconnect R53 to the circuit by soldering to micro pin installed in step (k).
- (m) Locate printed circuit track that connects U5-13 to U4-2. Refer to figure FO-2 Monitor PCB Layout, Top View.
- (n) Using a marker, make an indication on the PCB where a terminal can be installed through the track from U5-13 to U4-2, but not shorting to adjacent PCB track, as indicated in figure FO-2.
- (o) Carefully center punch location determined in step (n).



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- (p) Drill a 0.046-inch diameter hole (3/64-inch diameter) at location determined in step (n).
- (q) Install micro pin terminal (Nautel part number HAM16) at hole drilled in step (p).
- (r) Carefully solder printed circuit track located in step (m) to terminal installed in step (q).
- (s) Break printed circuit track between U4-2 and U5-13, as indicated in figure FO-2, using a small drill grinder or other appropriate tool.

2.2 The following electrical changes are to be completed to the printed circuit board assembly.

- (a) Install diode CR7 anode at terminal installed in step 2.1(b) and CR7 cathode at terminal 22.
- (b) Install diode CR8 anode at terminal installed in step 2.1(q) and CR8 cathode at terminal installed in step 2.1(k).
- (c) Install resistor R54 between terminal installed in step 2.1(q) and the terminal installed in step 2.1(e).
- (d) Install diode CR9 anode at terminal installed in step 2.1(q) and CR9 cathode at terminal installed in step 2.1(e).
- (e) Install capacitor C19 positive at terminal installed in step 2.1(q) and C19 negative at terminal installed in step 2.1(h).

COMPONENTS REQUIRED

3. The components required to complete this field modification are listed in table 1 of this field modification sheet.

Table 1 - Modification Parts List

REF DES	NAME OF PART AND DESCRIPTION	NAUTEL'S PART NO.	JAN, MIL OR MFR PART NO.	(OEM) MFR CODE
CR7	Diode, General Purpose, Small Signal	QAP29	1N4938	01295
CR8	Diode, General Purpose, Small Signal	QAP29	1N4938	01295
CR9	Diode, General Purpose, Small Signal	QAP29	1N4938	01295
R54	Resistor, Film, 470 K ohms, 2% 1/2 W	RD27	RL20S474G	36002

Table 2 Hardware Parts List

NAUTEL'S PART NO.	NAME OF PART AND DESCRIPTION	JAN, MIL OR MFR PART NO.	(OEM) MFR CODE	TOTAL IDENT PARTS
HAM16	Pin, Micro, .040 Dia	1425-2	91833	5



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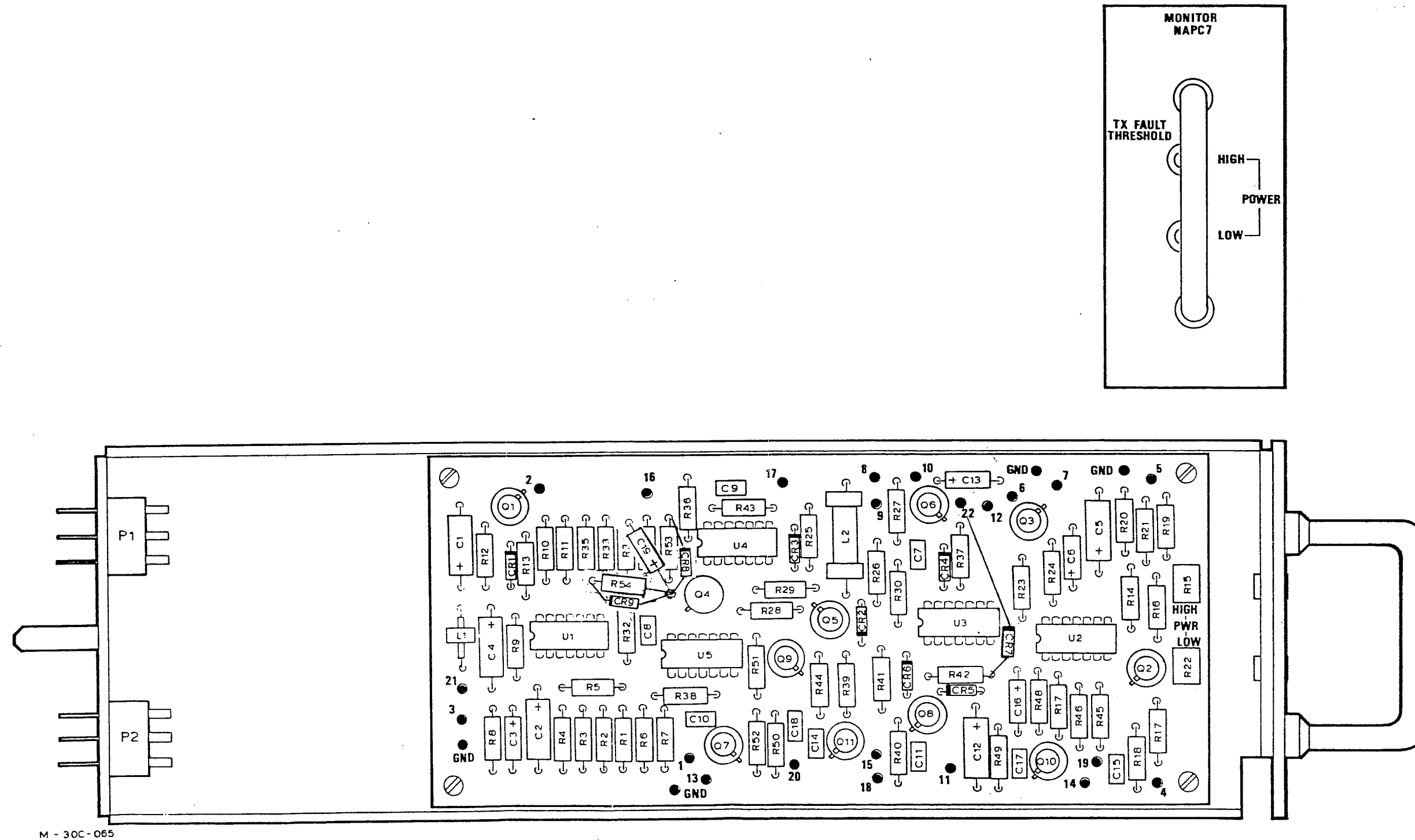


Figure FO-1 Assembly Detail - NAPC7 Monitor Module

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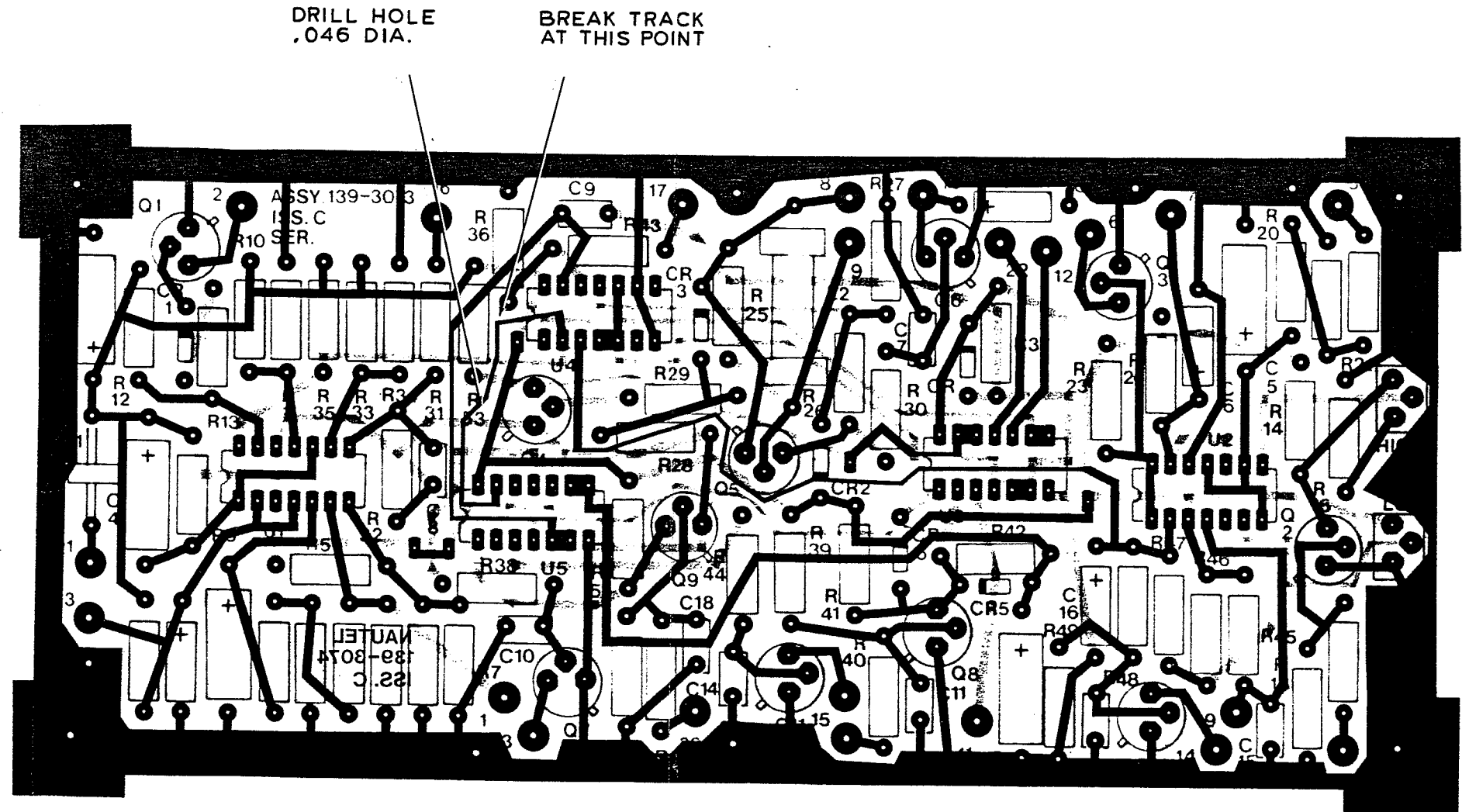


Figure FO-2 Monitor PCB Layout, Top View Through the Board

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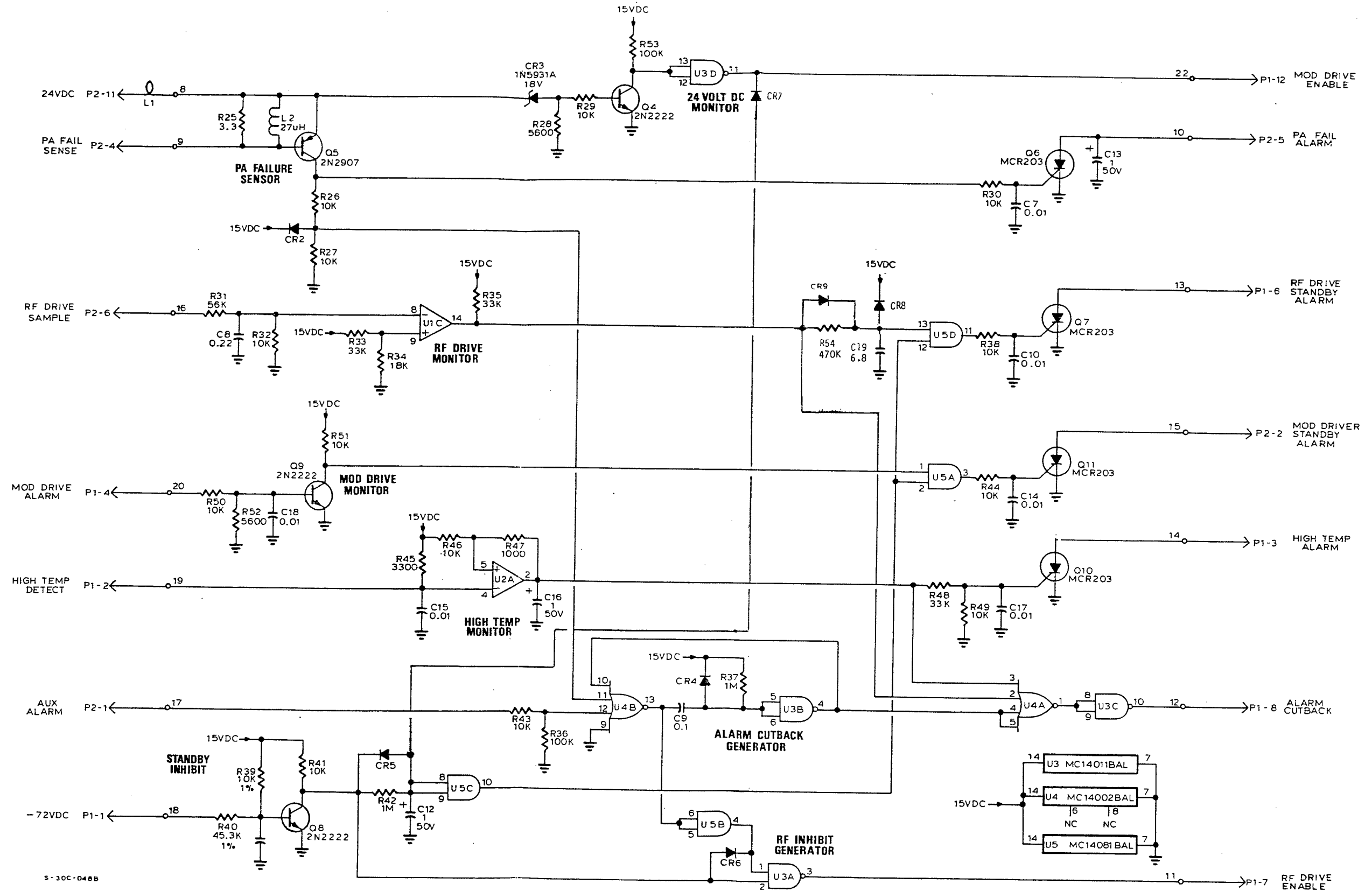


Figure FO-3 Electrical Schematic - NAPC7 Monitor Module (sheet 2 of 2) modified as per FM85015