

# Linn Parts List (Bill of Materials) for PCAS 020

**Please note** that this list is provided for guidance only. Linn Products cannot guarantee the accuracy of the information contained in the list and will not be held responsible for any errors that occur as a result of its use. Please double check that the details listed match the component that you are replacing.

## How to follow a Bill of Materials (BOM)

The BOM may, at first glance seem quite confusing. Once a few things are explained however, you should have no problems following it.

The main part of this document, i.e. the table, is split into nine columns as shown in the example below:

Quantity	Units	T C.Des	Part Number	Description	Type	Kit	Cost
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1.00000	ONES	R C001	CAP 003	22UF,+50%,-20%,50V,ELTR,TH,PCO100, C ,,,,,NCC,,RUBYCON,,MULLARD	C	Y	Y

**Ignore all columns except for the middle three – these contain all the information you require as explained below:**

### C.Des (Component Designator)

Every component on every Linn circuit board has an individual identification code known as a 'Component Designator' (C001, Q012, R345 etc). The designator shown in the table matches that printed on the circuit board beside each component.

These designators are coded according to type of component – at the start of each designator there is a letter and this describes the component type. The main types are shown below:

- C - Capacitor
- P - Connector
- Q - Transistor
- R - Resistor
- U - IC

**The components are listed in alphabetical order by Component Designator**

### Part Number

Our internal part number for the component. Quote this part number if ordering the part from Linn.

We advise however that you try to source parts locally as most components are commonly available from any good electronic parts supplier much faster and cheaper than we can supply and also, not every part listed here can be ordered from Linn. If you have problems sourcing the part locally, we will do our best to help you, but we cannot guarantee availability of any part listed.

### Description

All the technical details that you will require to order the part from your local or national electronic spares supplier. Includes (if applicable) the name(s) of our preferred manufacturer(s) for each part.



Assembly Number: PCAS 020/REF

PCAS 020 BOARD TO /L4R4 SPEC.  
PART FOR REFERENCE PUTPOSE ONLY

Units: ONES

BOM Type: A

Quantity	Units	T C.Des	Part Number	Description	Type	Kit	Cost
2.00000	ONES	P	CAP 103	6U8F,+20%,-20%,16V,TANT,TH,PCO200, ,,,,,,	S	D	Y
1.00000	ONES	R C001	CAP 058	2N2F,+1%,-1%,63V,PST,TH,SUF710,,, , ,,,,,ARCOTRONIC,,	C	Y	Y
1.00000	ONES	R C002	CAP 034	100UF,+20%,-20%,10V,TANT,TH, PCO200,,,,,,STC TAG,,THOMSON,,	C	N	Y
1.00000	ONES	R C003	CAP 033	22UF,+20%,-20%,10V,TANT,TH,PCO200, ,,,,,,STC TAG,,THOMSON,,	C	Y	Y
1.00000	ONES	R C004	CAP 083	470PF,+2%,-2%,63V,PST,TH,SUF710,,, , ,,,,,ARCOTRONIC,,	C	Y	Y
1.00000	ONES	R C005	CAP 082	68PF,+1%,-1%,63V,PST,TH,SUF710,,, , ,,,,,ARCOTRONIC,,	C	Y	Y
1.00000	ONES	R C006	CAP 081	120PF,+2%,-2%,63V,PST,TH,SUF710,,, , ,,,,,ARCOTRONIC,,	C	N	Y
** Warning - Part OBSOLETE on 30-OCT-1996							
1.00000	ONES	R C007	CAP 033	22UF,+20%,-20%,10V,TANT,TH,PCO200, ,,,,,,STC TAG,,THOMSON,,	C	Y	Y
1.00000	ONES	R C008	CAP 034	100UF,+20%,-20%,10V,TANT,TH, PCO200,,,,,,STC TAG,,THOMSON,,	C	N	Y
1.00000	ONES	R C009	CAP 020	100UF,+20%,-20%,63V,ELTR,TH, PCO200,,,,,,ECC,,RUBYCON,,	C	Y	Y
** Warning - Part OBSOLETE on 11-JAN-1999							
1.00000	ONES	R C010	CAP 020	100UF,+20%,-20%,63V,ELTR,TH, PCO200,,,,,,ECC,,RUBYCON,,	C	Y	Y
** Warning - Part OBSOLETE on 11-JAN-1999							



Assembly Number: PCAS 020/REF

PCAS 020 BOARD TO /L4R4 SPEC.  
PART FOR REFERENCE PUTPOSE ONLY

Units: ONES

BOM Type: A

Quantity	Units	T C.Des	Part Number	Description	Type	Kit	Cost
1.00000	ONES	R C011	CAP 020	100UF,+20%,-20%,63V,ELTR,TH, PCO200,,,,,,ECC,,RUBYCON,,	C	Y	Y
** Warning - Part OBSOLETE on 11-JAN-1999							
1.00000	ONES	R C013	CAP 020	100UF,+20%,-20%,63V,ELTR,TH, PCO200,,,,,,ECC,,RUBYCON,,	C	Y	Y
** Warning - Part OBSOLETE on 11-JAN-1999							
1.00000	ONES	R C014	CAP 020	100UF,+20%,-20%,63V,ELTR,TH, PCO200,,,,,,ECC,,RUBYCON,,	C	Y	Y
** Warning - Part OBSOLETE on 11-JAN-1999							
1.00000	ONES	R C015	CAP 020	100UF,+20%,-20%,63V,ELTR,TH, PCO200,,,,,,ECC,,RUBYCON,,	C	Y	Y
** Warning - Part OBSOLETE on 11-JAN-1999							
1.00000	ONES	R C017	CAP 250	330NF,+5%,-5%,250V,PPR,TH,CO900,,, ,,,,EVOX,,ARCOTRONIC,,	C	Y	Y
1.00000	ONES	R C018	CAP 024	220NF,+10%,-10%,63V,PEST,TH,CO200, ,,,,,EVOX,,ARCOTRONIC,,	C	Y	Y
1.00000	ONES	R C019	CAP 085	10000UF,+20%,-20%,64V,ELTR,TH, PCO400,,,,,,BHC,,,,	C	N	Y
1.00000	ONES	R C020	CAP 085	10000UF,+20%,-20%,64V,ELTR,TH, PCO400,,,,,,BHC,,,,	C	N	Y
1.00000	ONES	R D001	MISS 001	TYPE FUNCTION CASE 1N4148 DIODE	C	Y	Y
1.00000	ONES	R D002	MISS 001	TYPE FUNCTION CASE 1N4148 DIODE	C	Y	Y
1.00000	ONES	R D003	MISS 047	TYPE FUNCTION CASE 2.7V 400MW 5% ZENER DIODE	C	D	Y
** Warning - Part OBSOLETE on 30-OCT-1996							
1.00000	ONES	R D004	MISS 128	TYPE FUNCTION GENERAL INFO. GI EGP50A 6A FAST RECTIFIER	C	Y	Y
1.00000	ONES	R D005	MISS 128	TYPE FUNCTION GENERAL INFO. GI EGP50A 6A FAST RECTIFIER	C	Y	Y
1.00000	ONES	R D008	MISS 010	TYPE FUNCTION GENERAL INFO MR752 6A 200V RECTIFIER	C	Y	Y
1.00000	ONES	R D009	MISS 010	TYPE FUNCTION GENERAL INFO MR752 6A 200V RECTIFIER	C	Y	Y
1.00000	ONES	R D010	MISS 010	TYPE FUNCTION GENERAL INFO MR752 6A 200V RECTIFIER	C	Y	Y
1.00000	ONES	R D011	MISS 010	TYPE FUNCTION GENERAL INFO MR752 6A 200V RECTIFIER	C	Y	Y



Assembly Number: PCAS 020/REF

PCAS 020 BOARD TO /L4R4 SPEC.  
PART FOR REFERENCE PUTPOSE ONLY

Units: ONES

BOM Type: A

Quantity	Units	T C.Des	Part Number	Description	Type	Kit	Cost
-----	-----	-----	-----	-----	---	---	---
1.00000	ONES	R D012	MISS 157	TYPE FUNCTION GENERAL INFO. HLMP-3502 GREEN LED (GI)	C	Y	Y
1.00000	ONES	R P001	CONN 004/2	3 PIN XLR SOCKET FOR ALL APPLIC- ATIONS - \$\$\$\$ RUN KITTING LIST \$\$\$	A	D	Y
1.00000	ONES	R P005	CONN 006	3 WAY 0.156 INCH PITCH TRANSFORMER C CONNECTOR STRAIGHT WAFER	C	Y	Y
1.00000	ONES	R Q001	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q002	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q003	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q004	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q005	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q006	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q007	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q008	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q009	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q010	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q011	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q012	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q013	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q014	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y



Assembly Number: PCAS 020/REF

PCAS 020 BOARD TO /L4R4 SPEC.  
PART FOR REFERENCE PUTPOSE ONLY

Units: ONES

BOM Type: A

Quantity	Units	T C.Des	Part Number	Description	Type	Kit	Cost
-----	-----	-----	-----	-----	-----	-----	-----
1.00000	ONES	R Q015	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q016	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q017	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q018	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q019	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q020	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q021	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q022	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q023	TRAN 017	2SA1386,PNP,160V,15A,MT100,1386, SANKEN,	C	Y	Y
1.00000	ONES	R Q024	TRAN 018	2SC3519,NPN,160V,15A,MT100,3519, SANKEN,	C	Y	Y
1.00000	ONES	R Q025	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q026	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q027	TRAN 002	ZTX753,PNP,100V,2A,ELINE,753, ZETEX,	C	Y	Y
1.00000	ONES	R Q028	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q029	TRAN 001	ZTX653,NPN,100V,2A,ELINE,653, ZETEX,	C	Y	Y
1.00000	ONES	R Q030	TRAN 017	2SA1386,PNP,160V,15A,MT100,1386, SANKEN,	C	Y	Y
1.00000	ONES	R Q034	TRAN 018	2SC3519,NPN,160V,15A,MT100,3519, SANKEN,	C	Y	Y



Assembly Number: PCAS 020/REF

PCAS 020 BOARD TO /L4R4 SPEC.  
PART FOR REFERENCE PUTPOSE ONLY

Units: ONES

BOM Type: A

Quantity	Units	T C.Des	Part Number	Description	Type	Kit	Cost
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1.00000	ONES	R R001	RES 017	4K7,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R002	RES 029	1K,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R003	RES 036	300R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	D	Y	
1.00000	ONES	R R004	RES 002	150R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R005	RES 102	3K9,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R006	RES 036	300R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	D	Y	
1.00000	ONES	R R007	RES 036	300R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	D	Y	
1.00000	ONES	R R008	RES 029	1K,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R009	RES 029	1K,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R010	RES 009	27R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R011	RES 085	27K,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R012	RES 100	1K8,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R013	RES 042	620R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R014	RES 042	620R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R015	RES 026	62R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R016	RES 026	62R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	
1.00000	ONES	R R017	RES 007	10R,1%,MF,1/4W,0.25W,200V,50ppm,, , C	Y	Y	



Assembly Number: PCAS 020/REF

PCAS 020 BOARD TO /L4R4 SPEC.  
PART FOR REFERENCE PUTPOSE ONLY

Units: ONES

BOM Type: A

Quantity	Units	T C.Des	Part Number	Description	Type	Kit	Cost
-----	-----	- - - - -	-----	-----	-----	-----	-----
1.00000	ONES	R R018	RES 009	27R,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	Y	Y
1.00000	ONES	R R019	RES 048	12R,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	D	Y
1.00000	ONES	R R020	RES 048	12R,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	D	Y
1.00000	ONES	R R021	RES 048	12R,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	D	Y
1.00000	ONES	R R022	RES 085	27K,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	Y	Y
1.00000	ONES	R R023	RES 047	0R47,10%,WWE,W21,2.5W,100V,75ppm,,	C	Y	Y
1.00000	ONES	R R024	RES 047	0R47,10%,WWE,W21,2.5W,100V,75ppm,,	C	Y	Y
1.00000	ONES	R R025	RES 048	12R,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	D	Y
1.00000	ONES	R R026	RES 048	12R,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	D	Y
1.00000	ONES	R R027	RES 048	12R,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	D	Y
1.00000	ONES	R R028	RES 007	10R,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	Y	Y
1.00000	ONES	R R029	RES 009	27R,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	Y	Y
1.00000	ONES	R R030	RES 047	0R47,10%,WWE,W21,2.5W,100V,75ppm,,	C	Y	Y
1.00000	ONES	R R037	RES 050	0R1,10%,WWE,W21,2.5W,100V,75ppm,, ,	C	Y	Y
1.00000	ONES	R R046	RES 050	0R1,10%,WWE,W21,2.5W,100V,75ppm,, ,	C	Y	Y
1.00000	ONES	R R049	RES 018	15K,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	Y	Y
1.00000	ONES	R R050	RES 127	9K1,1%,MF,1/4W,0.25W,200V,50ppm,, ,	C	Y	Y



Assembly Number: PCAS 020/REF

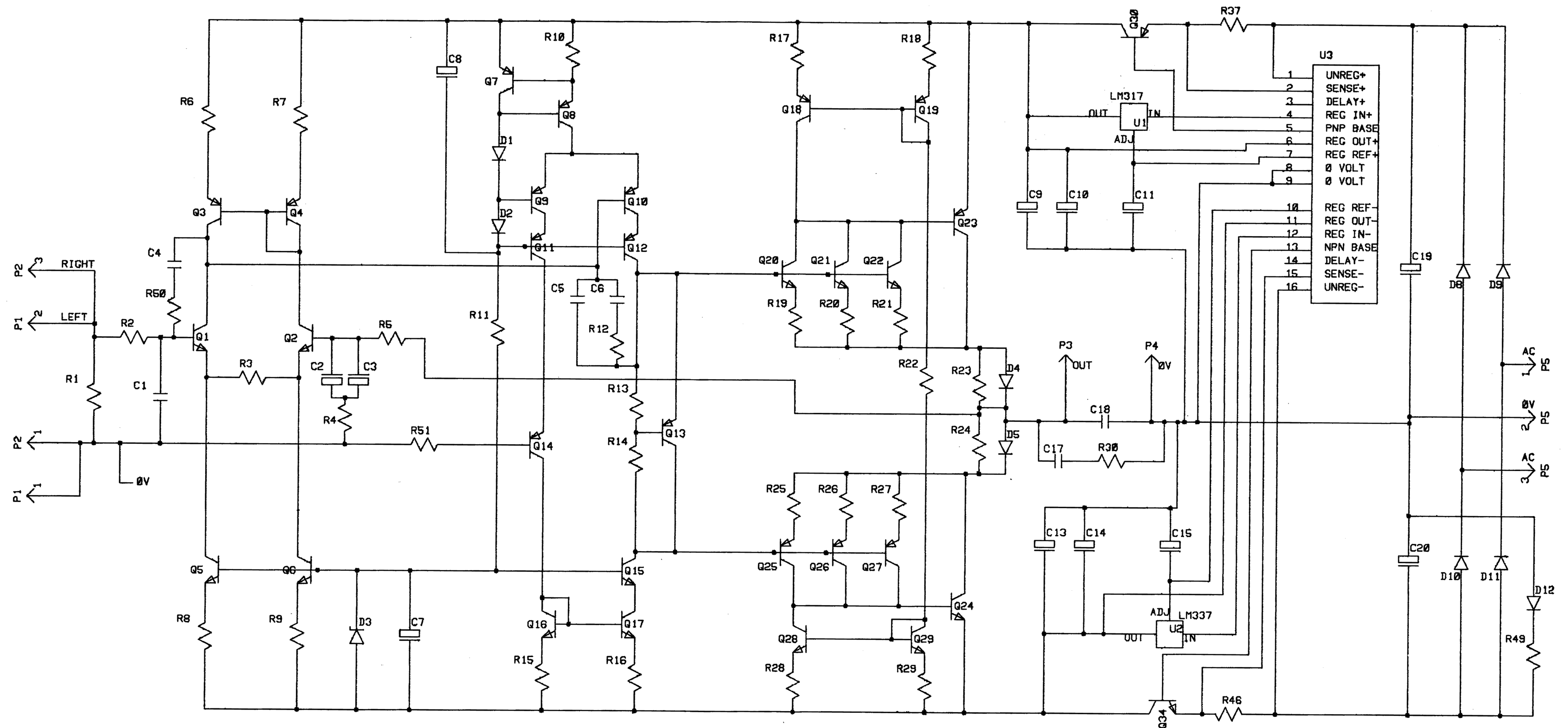
PCAS 020 BOARD TO /L4R4 SPEC.  
PART FOR REFERENCE PUTPOSE ONLY

Units: ONES

BOM Type: A

Quantity	Units	T C.Des	Part Number	Description	Type	Kit	Cost
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1.00000	ONES	R R051	RES 036	300R,1%,MF,1/4W,0.25W,200V,50ppm,,	C	D	Y
1.00000	ONES	R R052	RES 148	10K,5%,MF,1/2W,0.5W,200V,100ppm,,,	C	D	Y
** Warning - Part OBSOLETE on 30-OCT-1996							
1.00000	ONES	R R053	RES 148	10K,5%,MF,1/2W,0.5W,200V,100ppm,,,	C	D	Y
** Warning - Part OBSOLETE on 30-OCT-1996							
1.00000	ONES	R U001	IC 005	LM317T,VOLTAGE REGULATOR,TO220, 317T,NATSEM,	C	Y	Y
1.00000	ONES	R U002	IC 006	LM337T,VOLTAGE REGULATOR,TO220, 337T,NATSEM,THOM	C	Y	Y
1.00000	ONES	R U003	IC 030	HYBRID,THICK FILM HYBRID,SIL16,, GENHYB,	C	D	Y





— UP TO R51  
 — UPTO C20  
 — UP TO D12  
 — UP TO Q37  
 — UP TO P5  
 — MISSING REFS  
 — NONE

CONTRACT		FIRM NAME		
-		PCAS 020/L1R		
DR	/ /	SIZE D FSCM NO. DWG NO.		
CHK	/ /			
ENG	/ /			
APPD	/ /	NEXT HIGHER ASSY.		
-		-		
09:08:44		8-Oct-93		SHEET X