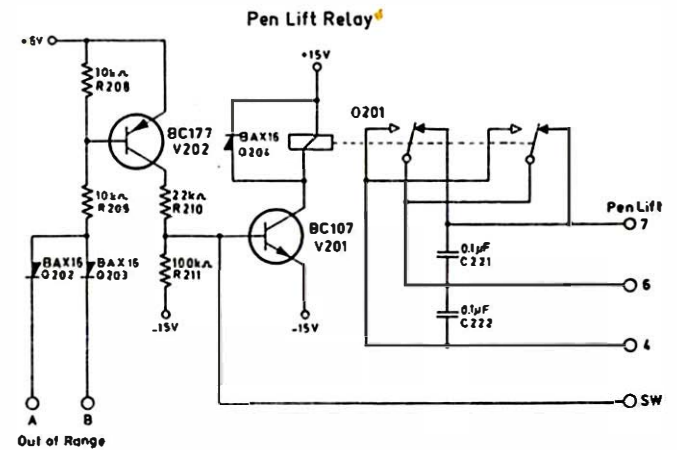
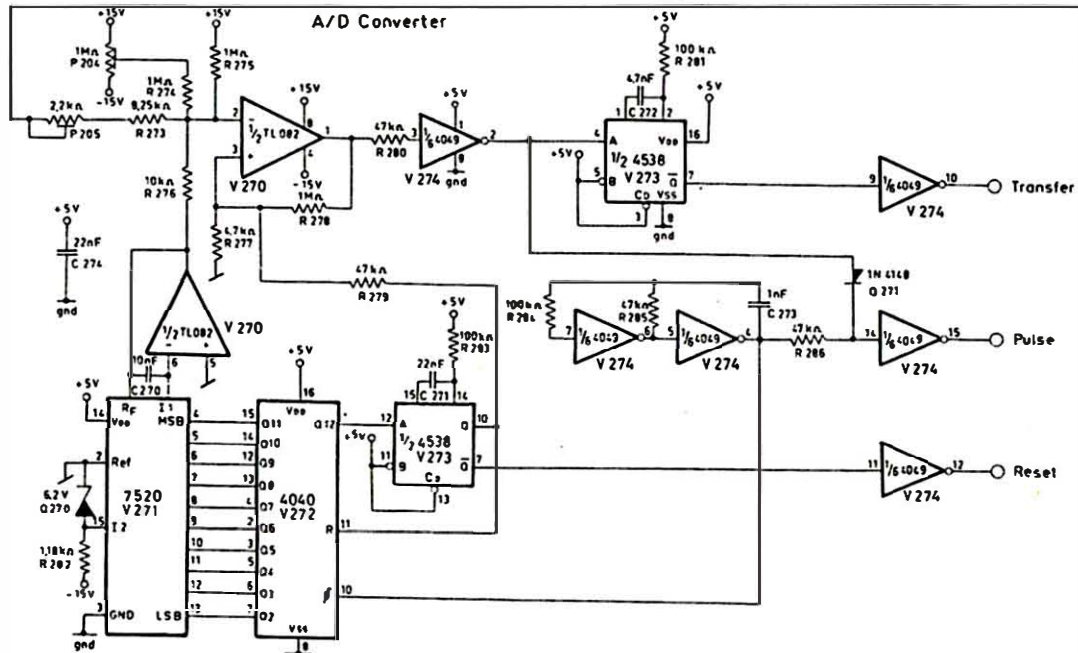
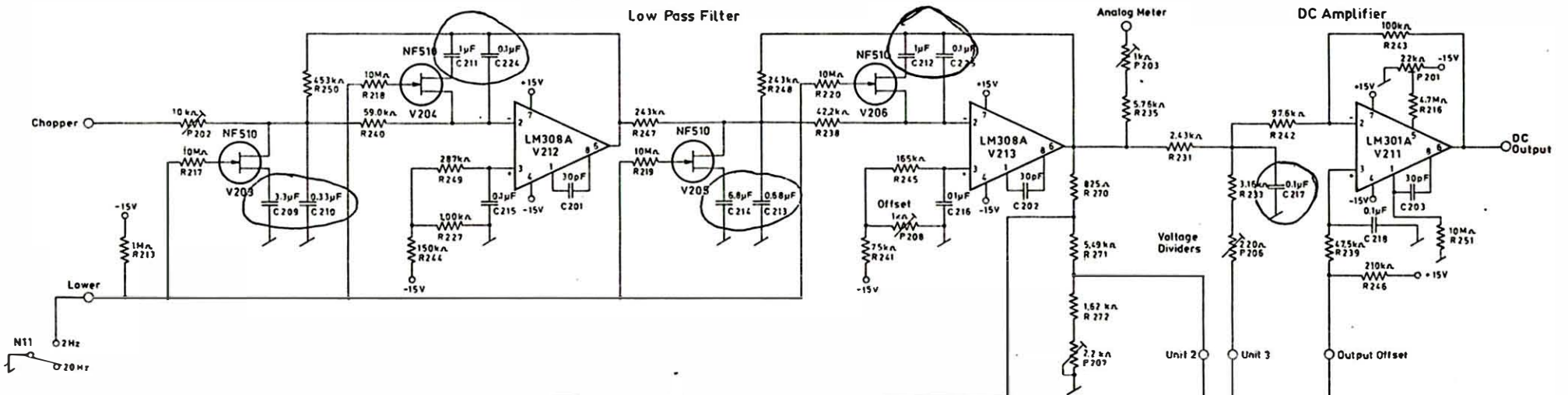


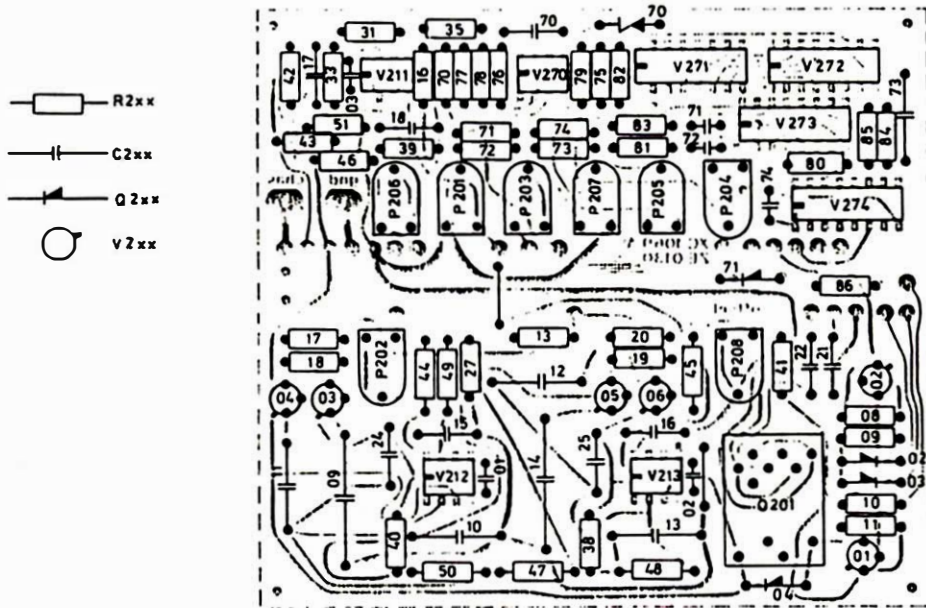
Viewed from the component side

Modification of 2971 Phase Meter for Use with TDS Control Unit 5842 - Applies to S/Ns from 491771
Lower Limiting Frequency Raised from 20Hz to 1kHz

C 201-203	Ceramic		30 pF 400 V	CK 0105	R 239	Metal	1/4 W	1%	47.5 kΩ	RF 4475
C 209	Polycarbonate	3.3 μF ==>	0.33 μF/100 V	No	R 240				59.0 kΩ	RF 4590
C 210	"	0.33 μF ==>	0.0068 μF/100 V	B & K	R 241				75.0 kΩ	RF 4750
C 211, 212	"	1.0 μF ==>	0.10 μF/100 V	Part	R 242				97.6 kΩ	RF 4976
C 213	"	0.68 μF ==>	0.015 μF/100 V	Nos.	R 243				100 kΩ	RF 5100
C 214	"	6.8 μF ==>	0.68 μF/100 V	Apply	R 244				150 kΩ	RF 5150
C 215, [x], 222	Polyester		0.1 μF/250 V	CS 0402	R 245				165 kΩ	RF 5165
* C 217	Polycarbonate	0.10 ==>	0.47 μF/250 V	Ditto	R 246				210 kΩ	RF 5210
C 224, 225	Polycarbonate	0.1 μF ==>	0.002 μF/100 V	"	R 247, 248				243 kΩ	RF 5243
C 270	Polyester		10 nF/400 V	CS 0430	R 249				287 kΩ	RF 5287
C 271	Ceramic		22 nF/ 30 V	CK 4222	R 250				453 kΩ	RF 5453
C 272			4.7 nF/ 30 V	CK 3473	R 251	Carbon		5%	10 MΩ	RB 7100
C 273	Polystyrene		1 nF/ 63 V	CT 1132	R 270	Metal		1%	825 Ω	RF 2825
C 274	Ceramic		22 nF/ 30 V	CK 4222	R 271				5.49 kΩ	RF 3549
O 201	Relay			OC 0011	R 272				1.62 kΩ	RF 3162
					R 273				8.25 kΩ	RF 3825
P 201	Trimmer	Cermet	lin 22 kΩ	PG 3221	R 274 275	Carbon		5%	1.0 MΩ	RB 6100
P 202			10 kΩ	PG 3109	R 276	Metal		1%	10.0 kΩ	RF 4100
P 203			1 kΩ	PG 2108	R 277	Carbon		5%	4.7 kΩ	RB 3470
P 204			1 MΩ	PG 5108	R 278				1.0 MΩ	RB 6100
P 205			2.2 kΩ	PG 2207	R 279,280				47 kΩ	RB 4470
P 206			220 Ω	PG 1221	R 281				100 kΩ	RB 5100
P 207			2.2 kΩ	PG 2207	R 282	Metal		1%	1.18 kΩ	RF 3118
P 208			1 kΩ	PG 2108	R 283,284	Carbon		5%	100 kΩ	RB 5100
					R 285,286				47 kΩ	RB 4470
Q 202 204	Si	BAX16	150 V/300 mA	QV 0217	V 201	Silicon	NPN	8C107		VB 0032
Q 270	Ze	1N825	6.2V/0.4 W	QV 1346	V 202		PNP seic	BC177		VB 0104
Q 271	Si	1N4148	75 V/75 mA	QV 0216	V 203 206	FET	N	NF510		VB 1021
R 208,209	Carbon	1/4 W	5%	10 kΩ	V 211	Op Ampl		LM301AN		VE 0017
R 210				22 kΩ	V 212,213			LM308AN		VE 0046
R 211				100 kΩ	V 270	2 - Op Ampl		TL082		VE 0159
R 213				1.0 MΩ	V 271	10-bit Dia. Conv		7520		VD 3004
R 216				4.7 MΩ	V 272	12-bit Counter		4040		VD 2100
R 217-220			10%	10 MΩ	V 273	2 - Prec Monost Multiv		4538		VD 2097
R 227	Metal		1%	1.00 kΩ	V 274	6 - Buffer/Conv		4049		VD 2024
R 231				2.43 kΩ						JJ 0012
R 233				3.16 kΩ						DL 0070
R 235				5.76 kΩ						GU 0004
R 238				42.2 kΩ						XC 1069

ZE 0130





Viewed from the component side
 Modification of 2971 Lower Limiting Frequency to 20Hz/1000Hz
 Valid from serial number 491771

C 201-203	Ceramic		30 pF / 400 V	CK 0105	R 239	Metal	1/4 W	1%	47.5 kΩ	RF 4475
C 209	Polycarbonate		3.3 μF / 100 V	CS 0347	R 240	-	-	-	59.0 kΩ	RF 4590
C 210	-		0.33 μF / 100 V	CS 0350	R 241	-	-	-	75.0 kΩ	RF 4750
C 211-212	-		1 μF / 100 V	CS 0384	R 242	-	-	-	97.6 kΩ	RF 4976
C 213	-		0.68 μF / 100 V	CS 0388	R 243	-	-	-	100 kΩ	RF 5100
C 214	-		6.8 μF / 63 V	CS 0397	R 244	-	-	-	150 kΩ	RF 5150
C 215-222	Polyester		0.1 μF / 250 V	CS 0402	R 245	-	-	-	165 kΩ	RF 5165
C 224-225	Polycarbonate		0.1 μF / 100 V	CS 0409	R 246	-	-	-	210 kΩ	RF 5210
C 270	Polyester		10 nF / 400 V	CS 0430	R 247,248	-	-	-	243 kΩ	RF 5243
C 271	Ceramic		22 nF / 30 V	CK 4222	R 249	-	-	-	287 kΩ	RF 5287
C 272	-		4.7 nF / 30 V	CK 3473	R 250	-	-	-	453 kΩ	RF 5453
C 273	Polystyrene		1 nF / 63 V	CT 1132	R 251	Carbon	-	5%	10 MΩ	RB 7100
C 274	Ceramic		22 nF / 30 V	CK 4222	R 270	Metal	-	1%	825 Ω	RF 2825
O 201	Relay			OC 0011	R 271	-	-	-	5.49 kΩ	RF 3549
P 201	Trimmer	Cermet	lin	22 kΩ	R 272	-	-	-	1.62 kΩ	RF 3162
P 202	-	-	-	10 kΩ	R 273	-	-	-	8.25 kΩ	RF 3825
P 203	-	-	-	1 kΩ	R 274-275	Carbon	-	5%	1.0 MΩ	RB 6100
P 204	-	-	-	1 MΩ	R 276	Metal	-	1%	10.0 kΩ	RF 4100
P 205	-	-	-	2.2 kΩ	R 277	Carbon	-	5%	4.7 kΩ	RB 3470
P 206	-	-	-	220 Ω	R 278	-	-	-	1.0 MΩ	RB 6100
P 207	-	-	-	2.2 kΩ	R 279,280	-	-	-	47 kΩ	RB 4470
P 208	-	-	-	1 kΩ	R 281	-	-	-	100 kΩ	RB 5100
Q 202-204	Si	8AX16	150 V / 300 mA	QV 0217	R 282	Metal	-	1%	1.18 kΩ	RF 3118
Q 270	Ze	1N825	6.2V / 0.4 W	QV 1346	R 283,284	Carbon	-	5%	100 kΩ	RB 5100
Q 271	Si	1N4148	75 V / 75 mA	QV 0216	R 285,286	-	-	-	47 kΩ	RB 4470
R 208,209	Carbon	1/4 W	5%	10 kΩ	V 201	Silicon	NPN	8C107	V8 0032	
R 210	-	-	-	22 kΩ	V 202	-	PNP seic.	8C177	V8 0104	
R 211	-	-	-	100 kΩ	V 203-206	FET	N	NF510	V8 1021	
R 213	-	-	-	1.0 MΩ	V 211	Op Ampl	-	LM301AN	VE 0017	
R 216	-	-	-	4.7 MΩ	V 212,213	-	-	LM308AN	VE 0046	
R 217-220	-	-	10%	10 MΩ	V 270	2-Op Ampl	-	TL082	VE 0159	
R 227	Metal	-	1%	1.00 kΩ	V 271	10-bit Dia. Conv	-	7520	VD 3004	
R 231	-	-	-	2.43 kΩ	V 272	12-bit Counter	-	4040	VD 2100	
R 233	-	-	-	3.16 kΩ	V 273	2-Prec. Monost Multiv	-	4538	VD 2097	
R 235	-	-	-	5.76 kΩ	V 274	6-Buffer/Conv	-	4049	VD 2024	
R 238	-	-	-	42.2 kΩ						
						Socket for Relay			JJ 0012	
						Clip for Relay			DL 0070	
						Shortconnecting Rail			GU 0004	
						Printed Circuit Board			XC 1069	

* C 217; 470n Polycarbonate

ZE 0130

