

To CONTROLLER
via FRAME

Modifications reserved

Name INFRA RED RECEIVER		Article nr. 76 1781-2
Date 12-10-1993	Drawn JV DY	Checked SCG
BARCO PROJECTION SYSTEMS		

TBA2800 Infrared Preamplifier IC (14-Pin Plastic Package TO-116)

Bipolar integrated circuit intended as a receiver preamplifier for the infrared-remote control systems designed with the SAA1250 integrated circuit.

The TBA2800 preamplifier IC contains four main parts:

- gain-controlled amplifier I
- amplifier II
- pulse-separating amplifier III and
- inverter IV

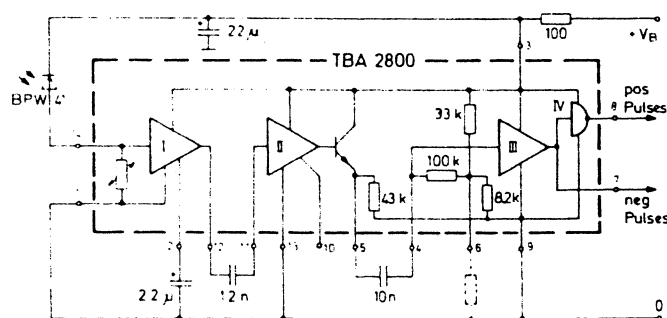
Amplifier I has a wide dynamic range and thus ensures interference-free operation, even at bright ambient light or at intensive infrared light as it comes from infrared sound transmissions or at bright 50 Hz modulated lights as it originates from fluorescent lamps.

It is also possible for the remote-control transmitter to be near the receiver without causing malfunctions by overdriving the receiver.

Amplifier II further amplifies the signal, and amplifier III separates the pulse-shaped intelligence signal from noise and other unwanted parts.

The additional inverter IV inverts the negative output pulses at pin 7 and thus delivers positive output pulses at pin 8.

If an additional resistor is inserted between pin 6 and GND, noise immunity is increased. But this is accompanied by decrease in sensitivity.



TBA2800 Block Diagram and Application Circuit

IR Receiver module

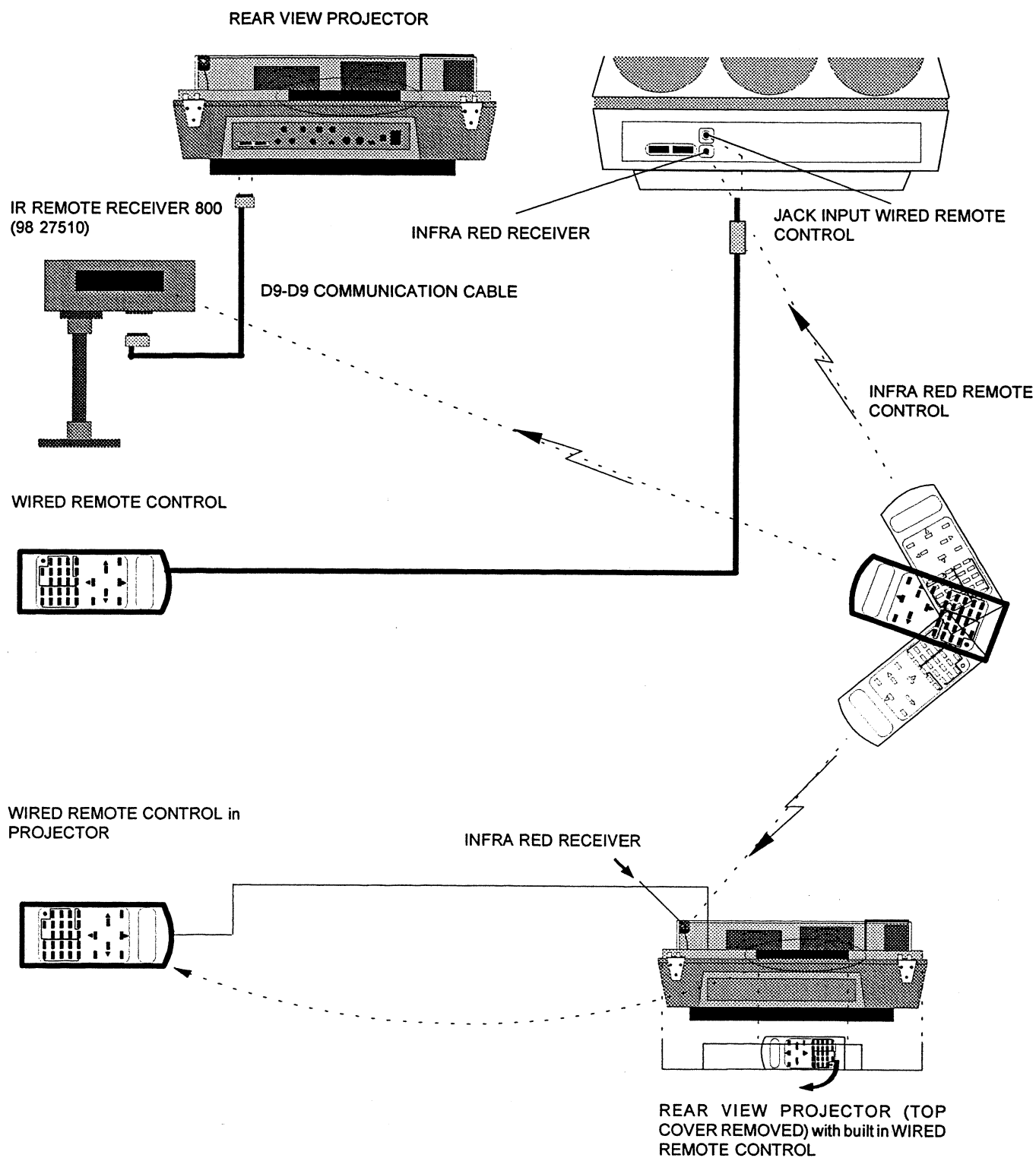
76 1781

PARTS LISTING

ITEM NO.	SIT.	DESCRIPTION	ITEM NO.	SIT.	DESCRIPTION
11 5940	C..2	C PP RA 10N J 63E2	13 2824	L..1	U 2800 TBA DIP14 PIRREC
11 59181	C..3	C PP RA 1N2J100E2	30 61582	L..1	CH AX NS 1,5 MH
11 15915	C..8	C EL RA 4M7M 35E2	71 6581	PC..	PCB EP RCVDS800 RX IR
11 15935	C.11	C EL RA 10M M 35E2	10 1160	R..9	R CF H100K J 0W25
13 1681	D..4	D BPW41 PHO			

SPARE PARTS

ART NO.	DESCRIPTION	QUANTITY			
13 1681	D BPW41 PHO	1	36 2121	SCR DIN7985 M 3 X 6	1
13 2824	U 2800 TBA DIP14 PIRREC	1	36 6102	NUT DIN934 M 3	1
30 61582	CH AX NS 1,5 MH	1	36 7502	WSHR DIN6798 A 3,2 F Z	2
31 5331	SLDRLUG SCR 1TAG D3.2 L12	1	80 2880	SCRN PJ49 G800 REC IR	1



FLOW CHART "PROJECTOR CONTROL"

