BARCO● GRAPHICS 800

90 00560
90 00569

INSTALLATION MANUAL

for software release 2.x

BARCO

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CONTENTS

SAFETY INSTRUCTIONS

INSTALLATION INSTRUCTIONS

Before operating the set please read this manual thoroughly, and retain it for future reference.

Installation and preliminary adjustments should be performed by qualified BARCO personnel or BARCO authorised service dealers.

OWNER'S RECORD

The part number and serial number are located at the rear side. Record these numbers in the spaces provided below. Refer to them whenever you call upon your BARCO dealer regarding this product.

PART NUMBER: _____	BARCO Projection Systems
CH. ____ SER. NUMBER _____	BELGIUM

SAFETY INSTRUCTIONS

⚡ | **CAUTION**
RISK OF ELECTRIC SHOCK
DO NOT OPEN | ⚠

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK ,

DO NOT REMOVE COVER (OR BACK)

NO USER-SERVICEABLE PARTS INSIDE

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

⚡ The lightning flash with an arrowhead within a triangle is intended to tell the user that parts inside this product are risk of electrical shock to persons.

⚠ The exclamation point within a triangle is intended to tell the user that important operating and/or servicing instructions are included in the technical documentation for this equipment.

WARNING
TO PREVENT FIRE OR ELECTRICAL SHOCK
HAZARD, DO NOT EXPOSE THIS PROJECTOR TO
RAIN OR MOISTURE

FEDERAL COMMUNICATION COMMISSION (FCC STATEMENT)

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures be required to correct the interference.

SAFETY INSTRUCTIONS

* All the safety and operating instructions should be read before using this unit.

* The safety and operating instructions manual should be retained for future reference.

* All warnings on the projector and in the documentation manuals should be adhered to.

* All instructions for operating and use of this equipment must be followed precisely.

ON SAFETY

1. This product should be operated from the type AC power source indicated on the marking label, visible through the clear window on the top cover of the projector.

Operating AC power voltage of the projector:

BARCOGRAPHICS 800
        Art.Nr 90 00560 *(220V AC)*
        Art.Nr.90 00569 *(110V AC)*

If you are not sure of the type of AC power available, consult your dealer or local power company.

2. This product is equipped with a 3-wire grounding plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
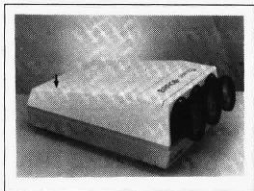
WARNING:THIS APPARATUS MUST BE GROUNDED (EARTHED)

WARNING FOR THE CUSTOMERS: THIS APPARATUS MUST BE GROUNDED (EARTHED) via the supplied 3 conductor AC power cable in accordance with the following instructions:

SAFETY INSTRUCTIONS

A. Mains lead (AC Power cord) with CEE 7 plug:

CEE 7

LINE = BROWN
NEUTRAL = BLUE
GROUND = YELLOW/GREEN

As the wires of the mains lead are colored in accordance with the following code:
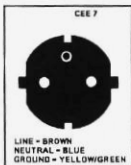
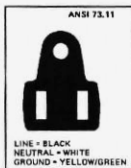Green-and-yellow: Earth (safety earth)
Blue: Neutral
Brown: Live

As the colors of the wires in the mains lead of this projector may not correspond with the colored markings identifying the terminals in your plug, proceed as follows.

The green-and-yellow wire must be connected to the terminal in the plug which is marked with the letter E or by the safety earth symbol ⏚ or colored green or green-and-yellow.
The blue wire must be connected to the terminal which is marked with the letter N or colored black.
The brown wire must be connected to the terminal which is marked with the letter L or colored red.

B. Power cord with ANSI 73.11 plug:

ANSI 73.11

LINE = BLACK
NEUTRAL = WHITE
GROUND = YELLOW/GREEN

The wires of the power cord are colored in accordance with the following code.

Green/yellow: ground
White: neutral
Black: live

3. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

To disconnect the cord, pull it out by the plug. Never pull the cord itself.

4. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord does not exceed the extension cord ampere rating. Also make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.

5. Never push objects of any kind into this product

through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electrical shock.

Never spill liquid of any kind on the product. Should any liquid or solid object fall into the cabinet, unplug the set and have it checked by qualified service personnel before resuming operations.

6. Lightning - For added protection for this video product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the projector due to lightning and AC power-line surges.

5

SAFETY INSTRUCTIONS

ON INSTALLATION

STANDARD CONFIGURATION
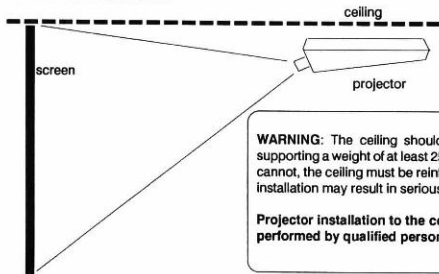
WARNING: The ceiling should be capable of supporting a weight of at least 250Kg(551LB). If it cannot, the ceiling must be reinforced. Improper installation may result in serious personal injury.

Projector installation to the ceiling should be performed by qualified personnel only.

The projector is factory preset for front screen projection/table mounted and adjusted for a screen size of 2.40m x 1.80m (7.87Ft x 5.90Ft).

The projector can also operate in other configurations as well i.e. rear projection, table mounted and for different screen sizes.

The screen sizes are limited to: - min screen size: 1.00m x 0.75m (3.28Ft x 2.46Ft)
- max screen size: 6.00m x 4.50m (19.68Ft x 14.76Ft)

WARNING: Only a qualified service representative or BARCO service center is authorized to change the configuration of this projector!

1. Do not place this projector on an unstable cart, stand, or table. The projector may fall, causing serious damage to it.

2. Do not use this projector near water.

3. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the projector and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This projector should not be placed in a built-in installation or enclosure unless proper ventilation is provided.

SAFETY INSTRUCTIONS

ON SERVICING

Do not attempt to service this projector yourself, as opening or removing covers may expose you to dangerous voltage potentials and risk of electric shock! **Refer all sevicing to qualified service personnel.**

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a. When the power cord or plug is damaged or frayed.

b. If liquid has been spilled into the projector.

c.If the product has been exposed to rain or water.

d. If the product does not operate normally when the operating instructions are followed.
Adjust only those controls that are covered by the operating instructions since improper adjustment of the other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation;

e. If the product has been dropped or the cabinet has been damaged;

f. If the product exibits a distinct change in performance, indicating a need for service.

Replacement parts - When replacement parts are required, be sure the service technician has used original BARCO replacement parts or authorized replacement parts which have the same characteristics as the BARCO original part. Unauthorized substitutions may result in degraded performance and reliability, fire, electric shock or other hazards. Unauthorized substitutions may void warranty.

Safety check - Upon completion of any service or repairs to this projector, ask the service technician to perform safety checks to determine that the projector is in proper operating condition.

ON CLEANING

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

- To keep the cabinet looking brand-new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with mild detergent solution. Never use strong solvents, such as

thinner or benzine, or abrasive cleaners, since these will damage the cabinet;

- To ensure the highest optical performance and resolution, the projection lenses are specially treated with an anti-reflective coating, therefore : avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.

SAFETY INSTRUCTIONS

ON REPACKING

Save the original shipping carton and packing material; they will come in handy if you ever have to ship your projector. For maximum protection, re-pack your set as it was originally packed at the factory.

ON ILLUMINATION

In order to obtain the best quality for the projected image, it is essential that the ambient light which is allowed to fall on the screen be kept to an absolute minimum.

When installing the projector and screen, care must be taken to avoid exposure to ambient light directly on the screen. Avoid adverse illumination on the screen from direct sunlight or florescent lighting fixtures.

The use of controlled ambient lighting, such as incandescent spot light or a dimmer, is recommended for proper room illumination. Where possible, care should also be taken to ensure that the floors and walls of the room in which the projector is to be installed are non-reflecting, dark surfaces. Brighter surfaces will tend to reflect and diffuse the ambient light and hence reduce the contrast of the projected image on the screen.
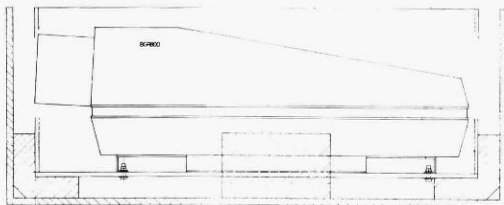
UNPACKING

DIMENSIONS

UNPACKING

UNPACKING

Take the projector out of its shipping carton and place it on a table.
For transportation utilities, the projector is mounted on a plank with 4 bolts. Use two 13 mm wrenches to loosen these bolts.

Save the original shipping carton and packing material : they will come in handy if you ever have to ship your projector. For maximum protection, repack your projector as it was originally packed at the factory.

Contents of the shipped box :

- 1 BARCOGRAPHICS 800
- 1 remote control unit RCU800.
- 1 power cable with outlet plug type CEE7 or ANSI 73.11.
- 1 connector clamp
- 1 owner's manual
- 1 installation manual (only for qualified technicians)

PROJECTOR DIMENSIONS

PROJECTOR DIMENSIONS

11

Notes

INSTALLATION GUIDELINES

ENVIRONMENT

WHAT ABOUT AMBIENT LIGHT?

WHICH SCREEN TYPE?

WHAT IMAGE SIZE? HOW BIG SHOULD THE IMAGE BE?

WHERE TO INSTALL THE PROJECTOR?

HOW TO INSTALL THE PROJECTOR?

INSTALLATION GUIDELINES

INSTALLATION GUIDELINES

Careful consideration of things as image size, ambient light level, projector placement and type of screen to use are critical to the optimum use of the projection system.

* Environment

Do not install the projection system in a site near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity. Be aware that room heat rises to the ceiling; check that temperature near the installation site is not excessive.
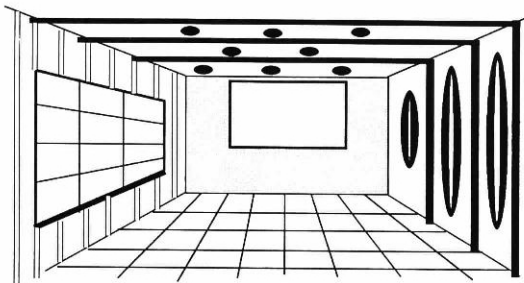
* What about ambient light ?

The ambient light level of any room is made up of direct or indirect sunlight and the light fixtures in the room. The amount of ambient light will determine how bright the image will appear. So, avoid direct light on the screen.

Windows that face the screen should be covered by opaque drapery while the set is being viewed. It is desirable to install the projecting system in a room whose walls and floor are of non-reflecting material. The use of recessed ceiling lights and a method of dimming those lights to an acceptable level is also important. Too much ambient light results in a 'wash out' of the projected image. That appears as a less of contrast between the darkest and lightest parts of the image. With bigger screens, the 'wash out' becomes more important. As a general rule, darken the room to the point where there is just sufficient light to read or write comfortably. Spot lighting is desirable for illuminating small areas so that interference with the screen is minimal.

INSTALLATION GUIDELINES

* Which screen type?

There are two major categories of screens used for projection equipment. Those used for front projected images and those for rear projection applications.

Screens are rated by how much light they reflect (or transmit in the case of rear projection systems) given a determined amount of light projected toward them. The 'GAIN' of a screen is the term used. Front and rear screens are both rated in terms of gain. The gain of screens range from a white matte screen with a gain of 1 (x1) to a brushed aluminized screen with a gain of 10 (x10) of more. The choice between higher and lower gain screens is largely a matter of personal preference and another consideration called the Viewing angle.

In considering the type of screen to choose, determine where the viewers will be located and go for the highest gain screen possible. A high gain screen will provide a brighter picture but reduce the viewing angle.

For more information about screens, contact your local screen supplier.
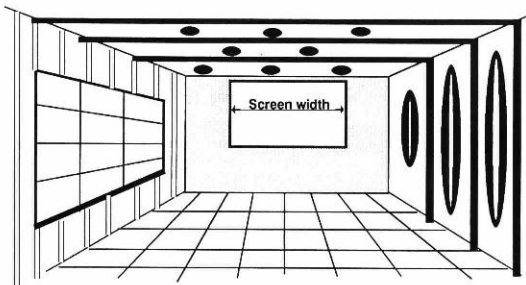
* What image size? How big should the image be?

The BARCOGRAPHICS 800 is designed for projecting an image size from 1.2m (4') to 6m (19.8') with a aspect ratio of 4 to 3. It leaves the BARCO factory, adjusted as a ceiling front projector for a screen size of 2.40 x 1.80 m. Changing the image size from the factory preset requires a realignment of the projector.
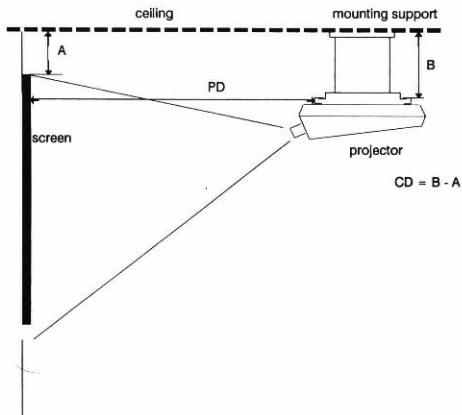
INSTALLATION GUIDELINES

* Where to install the projector?

To indicate a correct installation position it is necessary to know the distance :
- projector - ceiling
- projector - screen

To find this correct position for the BARCOGRAPHICS 800, 3 possible ways are indicated in the next paragraphs.

- a diagram which indicates the distances in function of the screen width.
- a table which gives immediately the correct position for different screen widths.
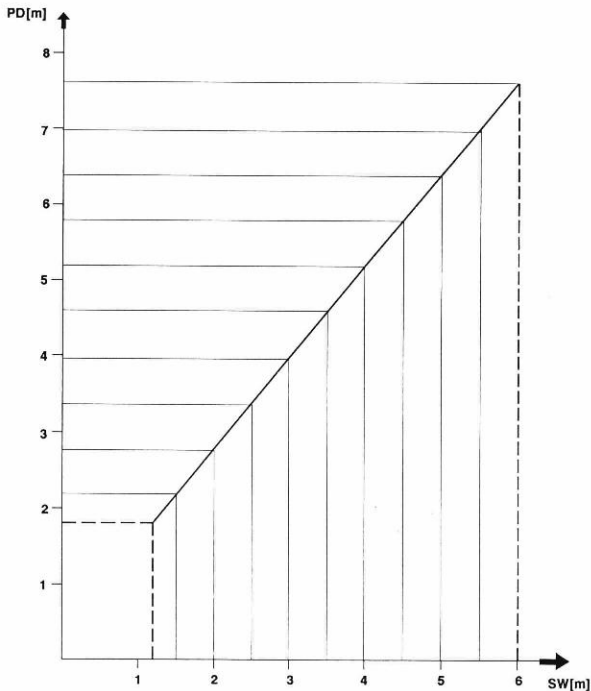- a formula which gives directly the correct position.

$$CD = B - A$$

INSTALLATION GUIDELINES

Lens diagrams for HD8 lens.

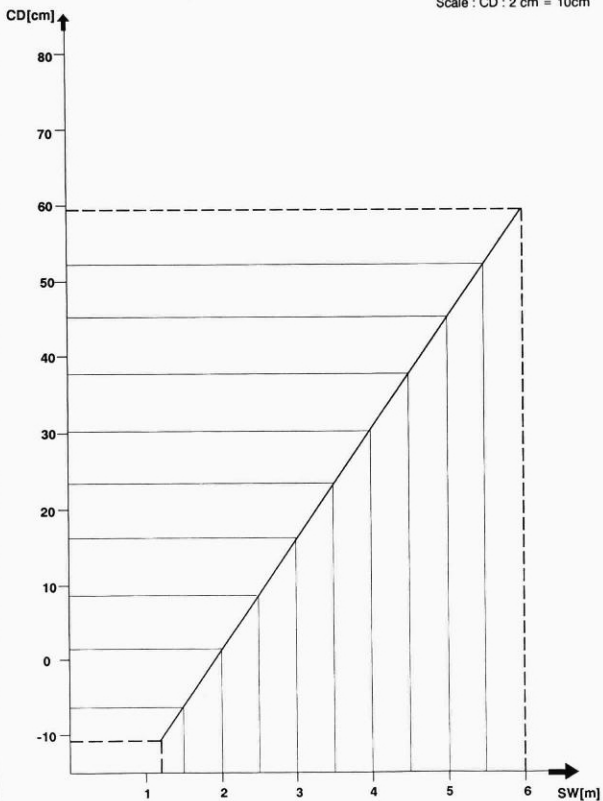Projector screen distance in function of the screen width (metric)

Scale : 2 cm = 1 m

INSTALLATION GUIDELINES

Projector - ceiling distance in function of the screen width (metric)

Scale : SW : 2 cm = 1 m
Scale : CD : 2 cm = 10cm

59 75234 INSTALLATION MANUAL

BARCO Projection Systems BGR800/270890

INSTALLATION GUIDELINES

Projector screen distance in function of the screen width (inch)

Scale : 1 inch = 50 inch

INSTALLATION GUIDELINES

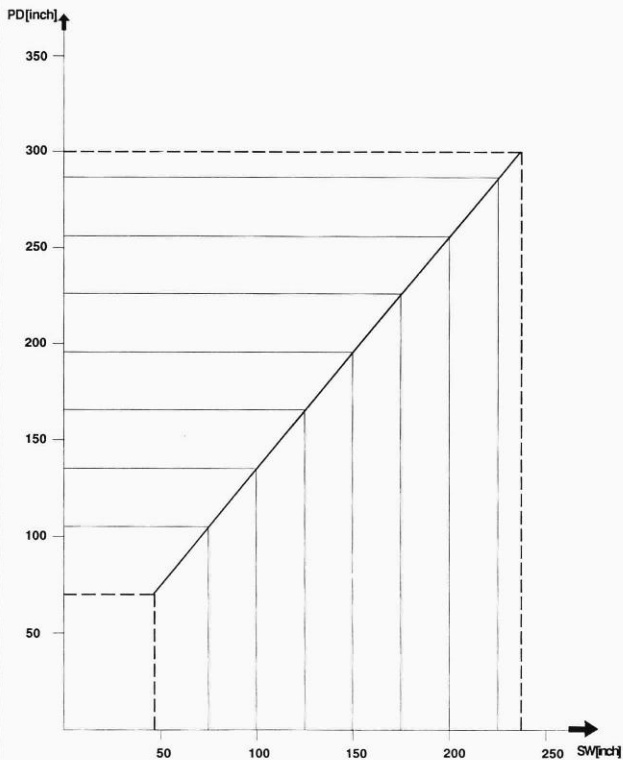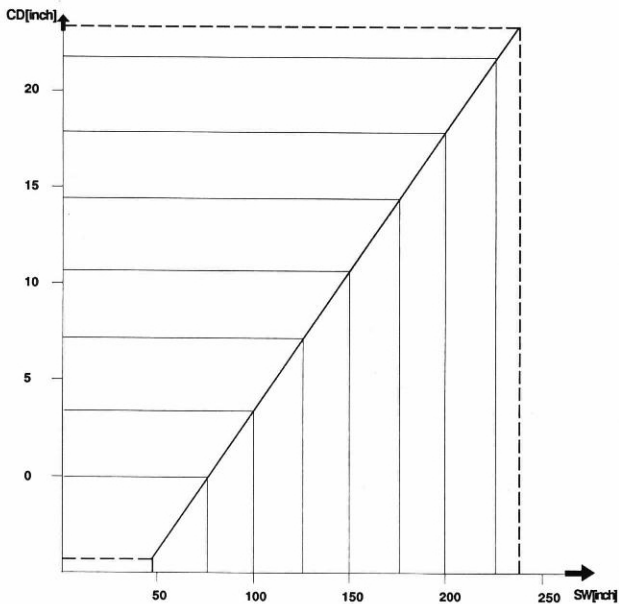Projector - ceiling distance in function of the screen width (inch)

Scale : SW : 1 inch = 50 inch
Scale : CD : 1 inch = 5 inch

INSTALLATION GUIDELINES

Distance tables and formulas (metric)

SW [m]	PD [m]	CD [cm]
1.20	1.80	-10.9
1.30	1.93	-9.6
1.40	2.05	-8.0
1.50	2.17	-6.6
1.60	2.29	-5.1
1.70	2.41	-3.63
1.80	2.53	-2.17
1.90	2.65	-0.7
2.00	2.77	0.74
2.10	2.89	2.2
2.20	3.01	3.7
2.30	3.13	5.1
2.40	3.25	6.6
2.50	3.38	8.0
2.60	3.50	9.5
2.70	3.62	10.9
2.80	3.74	12.4
2.90	3.86	13.9
3.00	3.98	15.3
3.10	4.10	16.8
3.20	4.22	18.2
3.30	4.34	19.7
3.40	4.46	22.1
3.50	4.58	22.6
3.60	4.71	24.0
3.70	4.82	25.5
3.80	4.94	27.0
3.90	5.06	28.4
4.00	5.18	29.9
4.10	5.31	31.4
4.20	5.43	32.8
4.30	5.55	34.3
4.40	5.67	35.7
4.50	5.79	37.2
4.60	5.91	38.6
4.70	6.03	40.0
4.80	6.15	41.5
4.90	6.27	43.0
5.00	6.39	44.4
5.10	6.51	49.9
5.20	6.63	47.4
5.30	6.75	48.8
5.40	6.87	50.3
5.50	6.99	51.7
5.60	7.11	53.2
5.70	7.23	54.6
5.80	7.36	56.1
5.90	7.48	57.6
6.00	7.60	59.0

Distance tables and formulas (inch)

SW [inch]	PD [inch]	CD [inch]
47	70.87	-4.33
50	74.49	-3.90
55	80.52	-3.17
60	86.55	-2.44
65	92.58	-1.71
70	98.61	-0.98
75	104.64	-0.25
80	110.67	0.48
85	116.70	1.20
90	122.73	1.93
95	128.76	2.66
100	134.79	3.39
105	140.82	4.12
110	146.85	4.85
115	152.88	5.58
120	158.91	6.30
125	164.94	7.03
130	170.97	7.76
135	177.00	8.49
140	183.03	9.22
145	189.06	9.45
150	195.09	10.68
155	201.12	11.40
160	207.15	12.13
165	213.18	12.86
170	219.21	13.58
175	225.24	14.32
180	231.27	15.05
185	237.30	15.77
190	243.33	16.50
195	249.36	17.23
200	255.39	17.96
205	261.42	18.69
210	267.45	19.42
215	273.48	20.15
220	279.51	20.87
225	285.54	21.60
230	291.57	22.33
235	297.60	23.06
237	300.01	23.35

formula (metric)

$$PD[m] = 1.206 \times SW[m] + 0.360$$

$$CD[cm] = 14.57 \times SW[m] - 28.40$$

formula (inch)

$$PD[inch] = 1.206 \times SW[inch] + 14.19$$

$$CD[inch] = 0.1457 \, SW[inch] - 11.18$$

INSTALLATION GUIDELINES

* How to install the projector?

Ceiling mount or table mount?
To install the BARCOGRAPHICS 800, apply always the BARCO kits which are specially designed for this function.

BARCO ceiling support.

Always use the BARCO ceiling support to attach your BARCOGRAPHICS 800 to the ceiling. (BARCO order number : 98 27340)

The installation instruction for this support is inserted in the packing of this set. You can order these instructions also by BARCO. BARCO order number 59 75693)

Appendix A gives a short overview of the set up of BARCO ceiling support.

INSTALLATION SET UP

ACCESS TO CONTROLS
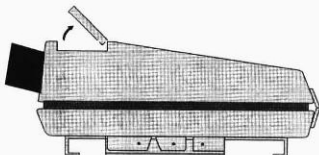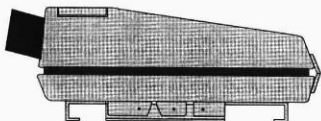
SCAN ADAPTATION

INSTALLATION SET UP

ACCESS TO CONTROLS.

The top cover of the BARCOGRAPHICS 800 has a unique user friendly design.

a. Optical focusing and lens angle adjustment.

opening procedure :
The cover with the projector logo can be opened by pulling on the side of this cover (lens side). Then you can turn it 90° to the backside of the projector.

cover with logo

Closing the cover :
Rotate the cover into its center holes and press once on the cover. The cover is locked.

INSTALLATION SET UP

b. Access to projector controls.

The set up controls are situated on the controller unit, the termination switches are on the boards itself. To get access, follow the next procedure.
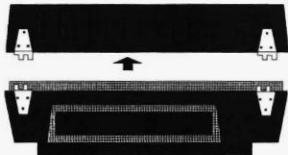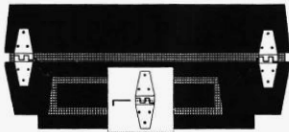
Remove of top cover :

* Turn both lock screws with a screwdriver or a coin counter clockwise.

* Lift up and pivot the top cover. Top cover is not supported with an incorporated support. Be aware not to flip over and damage the hinges.

During some installations it will become handy to remove the top cover totally.
Therefore,
* Pull out the two hinge-joints.

* Lift up the top cover

INSTALLATION SET UP

SCAN ADAPTATION

The scan switches must be placed in the correct position

Warning
TURN OFF PROJECTOR AND UNPLUG THE POWER CORD BEFORE A CHANGING SCAN SWITCHE POSITION

A : horizontal scan inversion

Three switches are used, one for each CRT. When changing the horizontal scan, insure that all three switches are left in the same position. See position of the switches (diagrams on next page) for the corresponding projector position.

B : Vertical scan inversion

One switch for the three CRT's is used. See position of the switch (diagrams on next page) for the corresponding projector position.

Procedure :

Make sure that the projector is switched off and the power cord is disconnected.

- Open the top cover.

For horizontal scan inversion :
- toggle the positions of the three horizontal scan inversion switches.

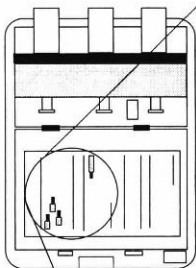For vertical scan inversion :
- toggle the position of the single vertical scan inversion switch.

After scan inversion, close the top cover and reconnect the power cord to the wall outlet.
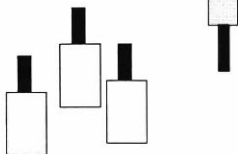
Note
Switching over from floor to ceiling or vice versa requires a complete readjustment of picture geometry and convergence.
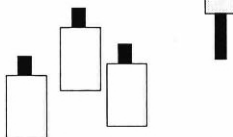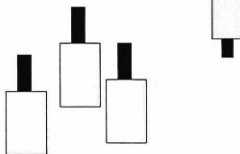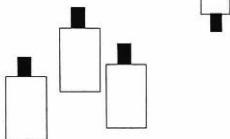
INSTALLATION SET UP

FRONT-CEILING

REAR-CEILING

REAR-TABLE

FRONT-TABLE
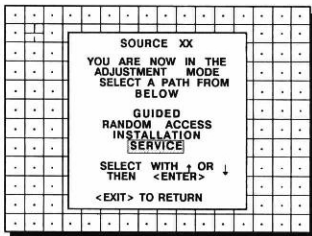
INSTALLATION SET UP

Check

Note : this check procedure can only be done after power (mains) connection. So, continue first with the *projector set up* and the *connections* and return then to this checking procedure.

Switch on the BARCOGRAPHICS 800 and look at the *"Start up screen"*. This screen is available in the 'Service mode'. There you will find an indication of the projectors configuration.

Configuration when leaving the factory : table/front configuration.
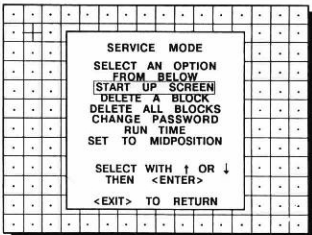
Follow next procedure :

- switch on the projector.
- the projector starts up on the last selected source.
- press the ADJUST key on the RCU800.
- your password will be asked (if activated). If it is correct, the path selection menu will be displayed (menu S1)
- select with the arrow keys 'Service' and press ENTER. The 'service mode menu' will be displayed (menu SE1)

```
SOURCE XX

YOU ARE NOW IN THE
   ADJUSTMENT    MODE
SELECT A PATH FROM
       BELOW

      GUIDED
RANDOM ACCESS
 INSTALLATION
  SERVICE

SELECT WITH ↑ OR ↓
   THEN   <ENTER>

<EXIT> TO RETURN
```

menu S1

- select with the arrow keys 'start up screen' and press ENTER.

```
SERVICE MODE

SELECT AN OPTION
    FROM BELOW
START UP SCREEN
DELETE A BLOCK
DELETE ALL BLOCKS
CHANGE PASSWORD
   RUN TIME
SET TO MIDPOSITION

SELECT WITH ↑ OR ↓
   THEN   <ENTER>

<EXIT> TO RETURN
```

menu SE1

INSTALLATION SET UP

The projector displays the *"BARCO start up screen"*.

This screen gives information about the projector configuration in the subject *'config.'*.

BARCO

GRAPHICS 800

PROJ. ADDRESS: 001
SOFT. VERSION: 2.0
CONFIG.: FRONT/
  CEILING
BAUDR. PC: 9600
TEXT: ON
SERIAL NO: XXXXXXX

Start up screen

Notes

PROJECTOR SET UP

PROJECTOR ADDRESS

POWER UP MODE

BAUD RATE FOR COMMUNICATION WITH A PC OR MAC ®
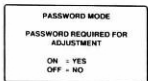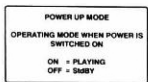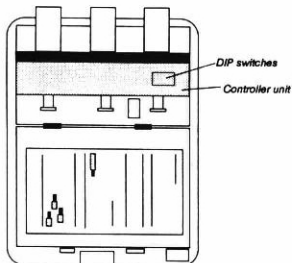
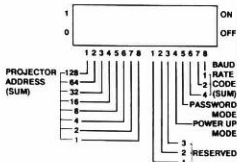### PASSWORD

PROJECTOR SET UP

PROJECTOR SET UP.

The DIP switches on the controller unit allow a set up of the projector.

- projector address (8 DIP switches)
- Power up (1 DIP switch)
- baud rate (3 DIP switches)
- password (1 DIP switch)

DIP switches
Controller unit

POWER UP MODE

OPERATING MODE WHEN POWER IS SWITCHED ON

ON = PLAYING
OFF = StdBY

PASSWORD MODE

PASSWORD REQUIRED FOR ADJUSTMENT

ON = YES
OFF = NO

BAUD RATE TABLE to COMPUTER	
CODE	SPEED
0	110
1	150
2	300
3	600
4	1200
5	2400
6	4800
7	9600

BLOCK MATCH
I²C SHORTED
PROCESSOR CYCLES
MAIN POWER
StdBY POWER

ERROR
RCU
RCVDS
PC
PAUSE

PROJECTOR ADDRESS (SUM)
128
64
32
16
8
4
2
1

BAUD RATE CODE (SUM)
1
2
4

PASSWORD MODE
POWER UP MODE

3
2
1
RESERVED

PROJECTOR SET UP

a) Setting the projector address.

The projector's address may be set to any value between 0 and 255. When the address is set, the projector can be controlled now :
- RCU800 for addresses between 0 and 9.
- IBM PC (or compatible) or Apple MAC for addresses between 0 and 255.

Note : A projector will respond to an address of '0' regardless of which address is set.

Addressable with the RCU800 _ _ _ _

Addressable with PC or MAC _ _ _ _

PROJECTOR SET UP

Address setting is a hardware set up of your projector which must be done during installation. Therefore 8 DIP switches are provided on the controller unit.

Each DIP switch has its own decimal value. The summary of the values associated to those DIP switches gives the address (see table 'address setting').

Switch	Value
1	128
2	64
3	32
4	16
5	8
6	4
7	2
8	1

Example : address 202

DIP switch   1 2 3 4 5 6 7 8
setting   1 1 0 0 1 0 1 0

Summary : 1x128 + 1x64 + 0x32 + 0x16 + 1x8 + 0x4 + 1x2 + 0x1 = 202

Note : When the address button on the RCU800, the projector will display its own address on the screen. Once the address button is pressed, the displayed address must be programmed into the RCU800. Use the numeric keys to enter the address.

PROJ. ADDR.: 001

---

59 75234 INSTALLATION MANUAL

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BARCO Projection Systems BGR800/270890
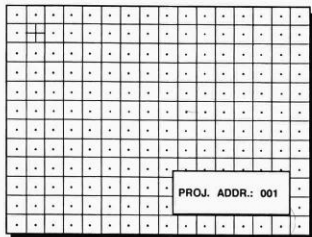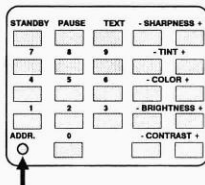
PROJECTOR SET UP

b. Power up mode.

The projector can start up in two different modes. The start up mode is determined by the position of DIP switch 4 on the controller unit.
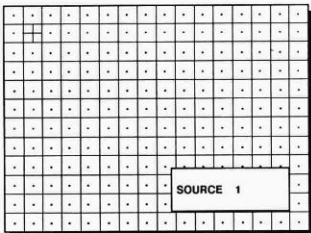
> Position of the DIP switch 4 :
>
> ON : operational mode
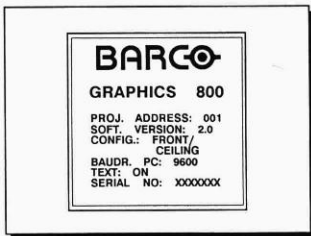> OFF : stand-by mode

Power up mode

1. Operational mode :

When the power switch on the rear of the projector is pressed, the projector displays the last selected source if available,

SOURCE 1

otherwise the BARCO start up screen is displayed if no source is present.

BARCO

GRAPHICS 800

PROJ. ADDRESS: 001
SOFT. VERSION: 2.0
CONFIG.: FRONT/
           CEILING
BAUDR. PC: 9600
TEXT: ON
SERIAL NO: XXXXXXX

BARCO start up screen

2. Stand by mode :

When the power switch on the rear of the projector is pressed, the projector goes into stand-by mode. The stand-by key on the RCU800 is used to turn the projector ON and OFF.


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PROJECTOR SET UP

c. Baud rate for communication with a IBM PC (or compatible) or MAC.

The communication speed between projector and PC or MAC has 8 possible settings. With DIP switches 6, 7 and 8 on the controller unit, labelled 'Baud rate code (sum)', it is possible to select the baud rate (communication speed). Each DIP switch has its own decimal value. The summary of the values associated to those DIP switches gives the baud rate code. With each baute rate code corresponds an communication speed.

Position of DIP switches and baute rate codes

baute rate code	speed	switch	value
0	110	6	4
1	150	7	2
2	300	8	1
3	600		
4	1200		
5	2400		
6	4800		
7	9600		

1 2 3 4 5 6 7 8 — Baud rate DIP switches
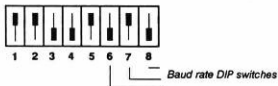
More information about PC communication with the BARCOGRAPHICS 800 is available in the communication software manual (order number : 59 75014).

d) Password mode

With a DIP switch 5 on the controller unit, the projector adjustments can be protected with a password. When the password feature is enabled, the customer has to enter a password before he can enter the adjustment mode(for more information about password setting and reprogramming the password, see Installation adjustment).

When the password menus are disabled (adjust mode is unprotected), the adjust mode can be selected by pressing on the ADJUST key. This position of the DIP switch is useful for qualified service technicians because they do not need a password to enter the adjust mode.

> Position of DIP switch 5 :
>
> ON : password mode enabled
> OFF : password mode disabled

ON
OFF
1 2 3 4 5 6 7 8 — Password mode
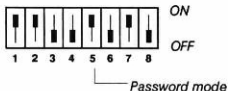
CONNECTIONS

POWER (MAINS) CONNECTION.

SOURCE CONNECTIONS

CONNECTIONS

CONNECTIONS

I. POWER (MAINS) CONNECTION.

> *Warning : This apparatus must be grounded (earthed).*

1. Preparation

Power cord : the power line cord is supplied with the projector (see : projector accessories). This projector may be connected to an IT-power system.

A. Mains lead (power cord) with CEE7 plug :

As the colors of the wires in the mains lead of this apparatus may not correspond with the colored markings identifying the terminals in your plug, proceed as follows :

- The Green/Yellow wire must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or colored green and yellow.

- The Blue wire must be connected to the terminal marked with the letter N or colored black.

- The Brown wire must be connected to the terminal marked with the letter L or colored red.
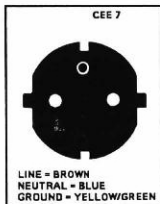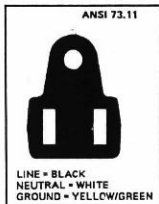
The wires of the delivered mains lead (power cord) are colored in accordance with the following code :

Green and Yellow : ground
Blue : neutral
Brown : live

B. Power cord with an ANSI 73.11 plug.

The wires of the delivered mains lead (power cord) are colored in accordance with the following code :

Green and yellow : ground (earth)
White : neutral
Black : live

ANSI 73.11

LINE = BLACK
NEUTRAL = WHITE
GROUND = YELLOW/GREEN

CEE 7

LINE = BROWN
NEUTRAL = BLUE
GROUND = YELLOW/GREEN

CONNECTIONS

2. Power cord (mains) cord connection

Power (Mains) input : Male power connector at the rear of the projector.

Attention :

Before plugging the female power connector into the male connector on the projector put the connector clamp in the clamp holder.
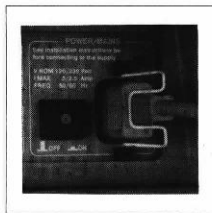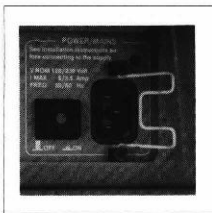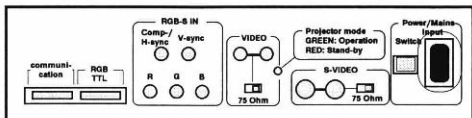
* Power check

Warning
Check by looking through the little window on the top cover if the indicated power voltage corresponds to that of the wall outlet in the room.

If the indication is different from that of the wall outlet, perform the input power (mains) voltage adaptation of the projector.(see next page)

CONNECTIONS

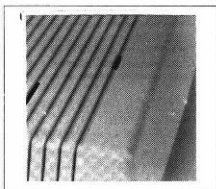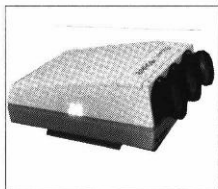**Input power (mains) voltage adaptation.**

Attention

The BARCOGRAPHICS 800 - 90 00560 leaves the factory to operate on a mains (power) input of 220 Vac.
The BARCOGRAPHICS 800 - 90 00569 leaves the factory to operate on a mains (power) input of 110 Vac.

Adaptation of the power input of the projector between 220 Vac and 110 Vac or vice versa is possible. Follow the procedure as described below.

Procedure

1. Open the top cover (see § Top cover).
2. Unscrew the retaining screw of the power input board and pull out this board.
3. Pull out the *'power selector plug'* and re-insert it as illustrated in the drawing below, depending on the wall outlet in the room.
4. Pull out the fuses and place the correct fuses in their sockets. Refer to table on next page for the correct fuses.
5. Re-insert the power input board and secure it with the retaining screw.
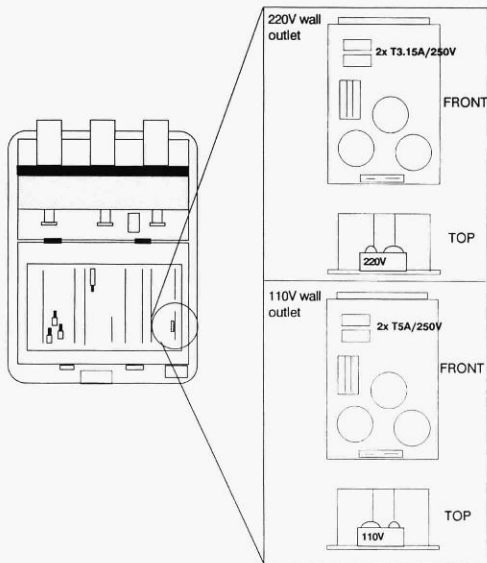
CONNECTIONS

Fuses

Warning

For continued protection against fire hazard :

- replace with the same type of fuse
- refer replacement to qualified service personnel

F1, F2	BARCO ord. no.
For 220 Vac (2x) T3.15A/250V	31 4103
For 110 Vac (2x) T5A/250V	31 4104

CONNECTIONS

* Power cord connection

With the projector switched off, first attach the power cord to the projector and then to the wall outlet.

3. Switching on

The AC power to the projector is switched ON and OFF using the power (main) switch.

Pressed : ON
Not pressed : OFF

 ON   OFF
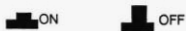
Power indication lamp :

Green : projector in operational mode
Red : projector in stand-by mode

The projector can start now in the *'operational mode'* or in the *'stand-by mode'*, depending on the position of the *'power up'* dip switch on the controller unit (see § Projector set up).

CONNECTIONS

II. SOURCE CONNECTIONS

The BARCOGRAPHICS 800 may be used as one of the following :

- a stand alone BARCOGRAPHICS 800 controlled with the RCU800.

- a stand alone BARCOGRAPHICS 800 controlled via IBM PC (or compatible) or Apple MacIntosh and the RCU 800.

Remark : When stand alone projectors are chained, each projector has to be set on the same input source. (see controlling chained projectors)
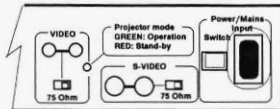
- a BARCOGRAPHICS 800 in combination with the RCVDS 800 and controlled with the RCU800.

- a BARCOGRAPHICS 800 in combination with the RCVDS 800 and controlled via PC or MAC.®

Remark : When a BARCOGRAPHICS 800 is combined with the RCVDS 800, there is no chaining possibility for the projector. Each projector must have its own RCVDS.

CONNECTIONS

1. Stand alone projector.

Five different types of input sources may be connected directly to the BARCO GRAPHICS 800.
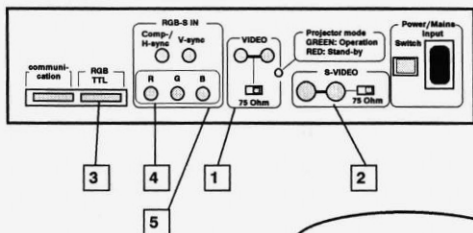
SOURCE Nr	PROJECTOR INPUT TYPE	PRESS DIGIT BUTTON
1	COMP. VIDEO	1
2	S-VIDEO *	2
3	RGB TTL	3
4	RGsB **	4
5	RGB/S ***	5
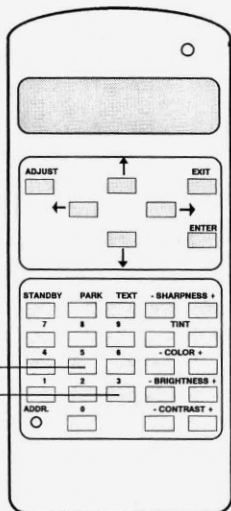
*   Input signal Y/C (luma/chroma)
**   Input signal: R,G and B with sync on G
***   Input signal: R,G,B and separate sync's

CONNECTIONS

Connecting a composite video source to input 1

Composite video signal from VCR, OFF air signal decoder, etc.

Composite Video input selection : press digit button 1 on the RCU800.
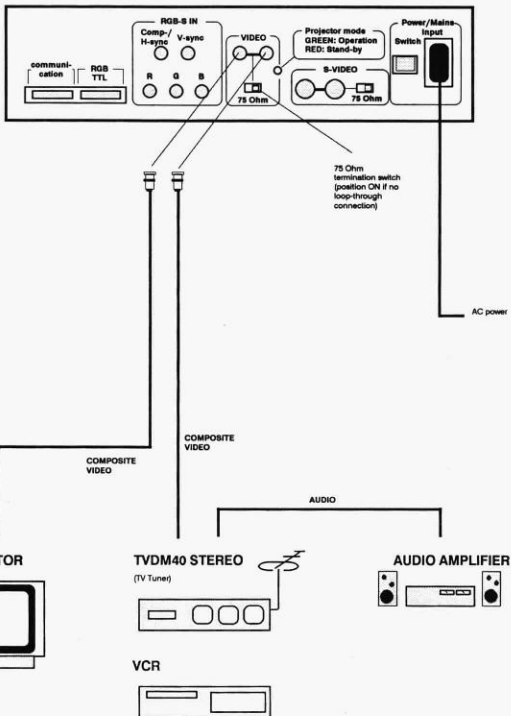
For more information about cables and connectors : order BARCO's 'Identification of cables and connectors' information sheets. BARCO order number : 59 75923. All cables in customer lengths with connectors can be ordered at BARCO.

CONNECTIONS

75 ohm termination switch.

Terminate the video input of the projector using the 75 ohm switch next to the video input at the input panel when the projector operates alone or when it is the last projector on the video line when the projectors are connected in a loop through configuration.

ON : signal terminated
OFF : signal not terminated

CONNECTIONS

Connecting a S-Video source to input 2.

Separated Y-Luma/C-Chroma signal inputs for higher quality playback of Super VHS signals (4-pin S in)

S-Video input selection : press digit button 2 on the RCU800.

Pin configuration input connector.
pin 1 : earth (ground) luminance
pin 2 : earth (ground) chrominance
pin 3 : luminance (Y) signal 1Vpp ±3 dB
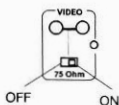pin 4 : chrominance (C) signal 300 mVpp ±3dB

CONNECTIONS

75 ohm termination switch

Terminate the S-video input of the projector using the 75 ohm switch next to the S-Video input at the input panel when the projector operates alone or when it is the last projector on the video line when the projectors are connected in a loop through configuration.

ON : signal terminated
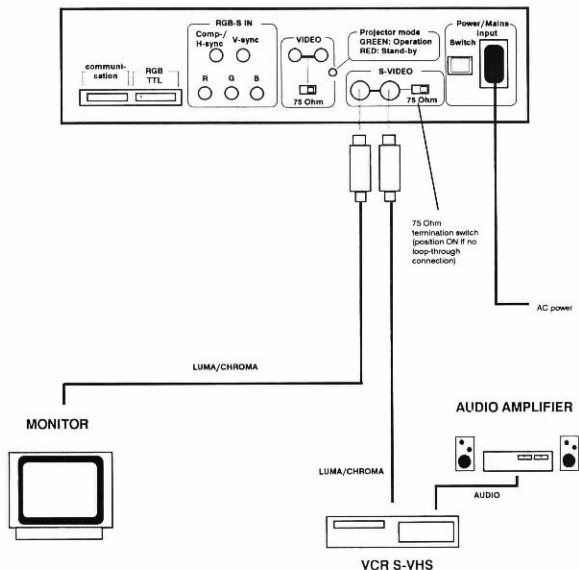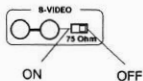OFF : signal not terminated

CONNECTIONS

Connecting a RGB Analog source to the analog inputs of the projector.

75 ohm, RGB analog input terminals with separate H and V sync inputs, with composite sync input or with sync signals on green.
Always use an interface when a computer with a local monitor has to be connected to the projector. Interfaces to be applied :
- universal analog interface. Order number 98 26100
- RGB 120 MHz analog interface. Order number 98 26570

RGsB input selection : press digit button 4 on the RCU800
(RGsB : R, G, B signals with sync on GREEN)

RGB/S input selection : press digit button 5 on the RCU800
(RGB/S : R, G, B and separate sync; H- and V- sync or COMP sync)
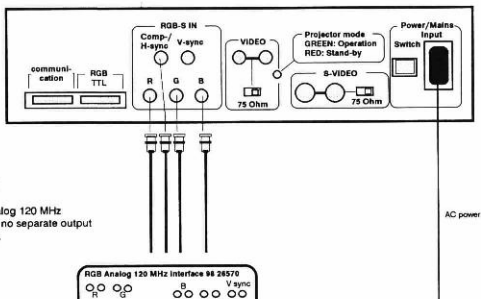
ATTENTION!

The RGB Analog 120 MHz
interface has no separate output
for vert. sync.

Important : line termination switches (normal position : line terminated) and input polarity adaptation switches (normal position : inputs accept a pos. input signal) are located in the interface unit.

For cable information : order information sheets about 'Identification of cables and connectors'.
Order number : 59 75923.

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CONNECTIONS

In case of chaining the projectors with T-BNC connectors (BARCO order number : 31 3668) the 75 ohm line termination switch must be set in the correct position. Those switches are provided on the RGB analog input board.

> **Warning**
> **When changing the position of the termination switches, turn off the projector and unplug the power cord from the wall outlet.**

Procedure :

- power down the projector and unplug projector power cord.
- open the top cover. (see § Top cover)
- Remove out the RGB analog input module from the mother board.
- Change the position of the switches with a small screwdriver (2mm) and re-insert the module.

    ON : 75 ohm terminated
    OFF : not terminated

The switches must be placed in the ON position (75 ohm terminated) when the projector is used as a stand alone projector or when it is the last projector in a loop through configuration.

CONNECTIONS

Connecting a RGB TTL source to the RGB TTL input of the projector.

Connect your TTL source via an interface to the TTL input. (BARCO order number : 98 26110)

The TTL input is specially designed for signals which follow the CGA and EGA standard. It switches automatically between the two standards.

RGB TTL INPUT SELECTION: PRESS digit button 3 on the remote control
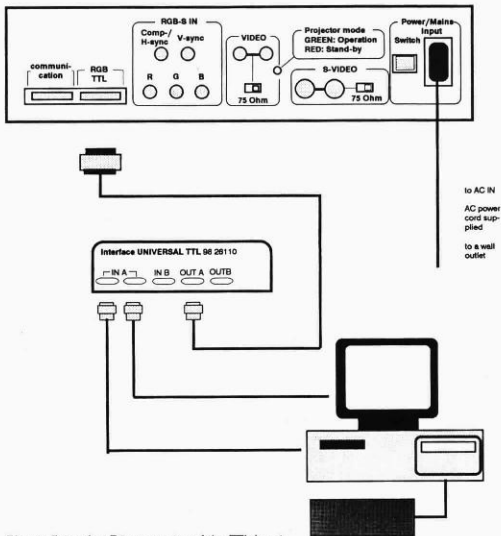
Pin configuration D9 connector of the TTL input

EGA configuration	CGA configuration
1 ⊥	⊥
2 red	-
3 RED	RED
4 GREEN	GREEN
5 BLUE	BLUE
6 green	intensity
7 blue	-
8 Hor/comp sync	Hor/comp sync
9 Vert sync	Vert sync

CONNECTIONS

> **Warning :**
> *When changing the position of the DIP switches turn off the projector and unplug the power cord from the wall outlet.*

- Power down and unplug the projector power cord
- Open the top cover (see § Top cover)
- Take out the RGB TTL module
- Change the position of the DIP switches with a small screwdriver (2mm).

DIP switch group S1.
With this group of DIP switches it is possible to terminate all RGB TTL signal inputs at the same time.

DIP switch group S2(switch 4)
With this switch it is possible to invert all the color input signals.

DIP switch group S2(switch 2)
This switch controls the 'Blue in green' function in CGA as well as in EGA.
Blue characters are difficult to read, therefore the blue text will be displayed as cyan so that the readability becomes better. Remember to switch off S2(2) if you want to show colored pictures in EGA, otherwise the blue colors are shown as cyan.

DIP switch group S2(switch 3)
This switch is only active in CGA mode. It changes dark yellow into brown.

    ON position : brown
    OFF position : yellow

When the input source is a EGA source, it will automatically disable this yellow/brown function.
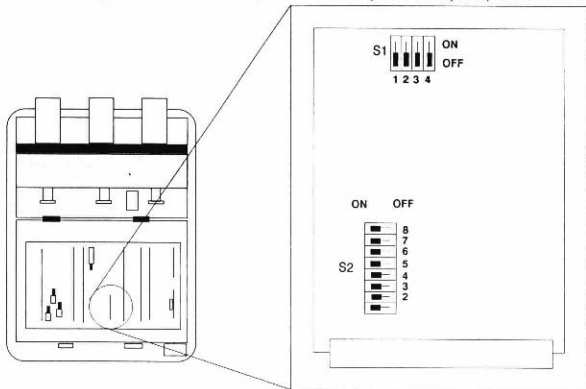
CONNECTIONS

Connecting a RGB TTL (EGA) source to the projector.

Connecting a RGB TTL (EGA) source, using the universal TTL/Analog interface (BARCO order number : 98 26020)

Connect your EGA source to the interface and feed the output signal of the interface with coaxial cables to the RGB analog input of the projector. The projector will treat it as a RGB analog source

RGB-S input selection : press digit button 5 on the RCU800
(RGB-S : R, G, B and composite sync)
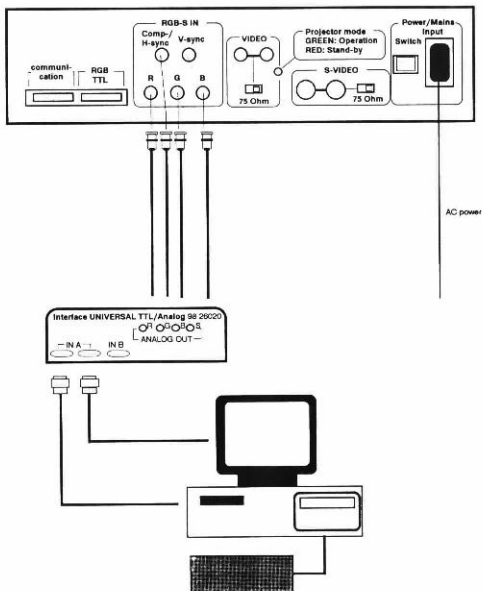
CONNECTIONS

Connecting an IBM PS/2 computer to the projector.

To feed this source to the BARCOGRAPHICS 800 use the RGB analog automatic sync system 2 interface. (BARCO order number : 98 26610).

Connect your computer to the interface (instruction sheet is inclosed in the packing of the interface) and feed the interface output signals with coaxial cables to the RGB analog input of the projector. The projector will treat it as a RGB analog source.

RGB-S input selection : press digit button 5 on the RCU800.
(RGB-S : R, G, B, composite sync)

CONNECTIONS

The BARCOGRAPHICS 800 projector has a RS 232 port that allows it to communicate with a computer. (RS422, 'Macintosh', can be directly connected to the projector's port without any problem if you respect RS 232 distances and baudrates.)

Applications :
Two main applications : remote control and data communications.
 a) remote control :
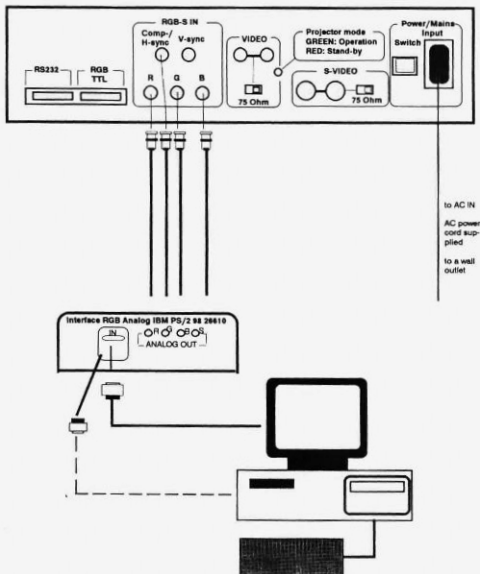 - easy adjustment of projector via IBM PC (or compatible) or MAC connection.
 - allow storage of multiple projector configurations and set ups
 - wide range of control possibilities
 - address range from 0 to 255.

 b) data communications :
 - sending adjustment data to the projector or copying the adjustment data from the projector to
  a hard memory device

When chaining projectors, slave the output on the front side through to the input of the next projector.

More information about this feature is included in the Control 800 software manual which is delivered together with the software or which can be ordered at BARCO (order number : for DOS version :59 75014; for MAC version : 59 75224)

CONNECTIONS

Connecting a RCVDS 800 to the BARCOGRAPHICS 800.

- Up to 10 inputs with one RCVDS 800 and 90 inputs when RCVDS 800 are linked via the expansion module
- Serial communication with the projector.
- Remote control buttons on the RCVDS 800 to control the BARCOGRAPHICS 800 (source selection and analog settings).
- The selected source number will be displayed on a 2 digit display and the selected input module will be indicated with a LED on the rear.

For more information about the use of the RCVDS 800, consult the RCVDS 800 owner's manual, BARCO order number : 59 75004.

CONTROLLING

The RCU800

TERMINOLOGY OF FUNCTIONS ON THE RCU800

CONTROLLING STAND ALONE PROJECTORS WITH THE RCU800

CONTROLLING CHAINED PROJECTORS WITH THE RCU800

CONTROLLING STAND ALONE AND CHAINED PROJECTORS WITH PC OR MAC

Caution : Do not display a stationary image with full contrast and brightness for longer than 20 min., otherwise you risk damage to the CRT's.

CONTROLLING

1. The RCU800

With the RCU800, there are three different ways of sending information to the projector. These ways are via :

a) The built in RCU800.
b) The IR transmission RCU800.
c) The hardwired RCU800.

The keys have the same function for all three ways of sending the information to the projector.

a) The built in RCU800.

This RCU800 is built to the rear of the projector. To gain access to it, unscrew the retaining screw and rotate the RCU800 90°.
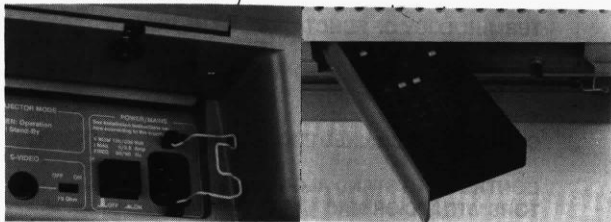
b) The IR transmission RCU800.

This remote control is included with the BARCOGRAPHICS 800. When using this remote control, make sure that the projector address is programmed on the remote control (see § Selecting the address).

c) The hardwired RCU800.

The IR transmission RCU800 may also be used in a hardwired configuration. Plug one end of the remote cable in the connector on top of the RCU800 and the second side in the connector in the front panel of the BARCOGRAPHICS 800 labelled 'remote control'.
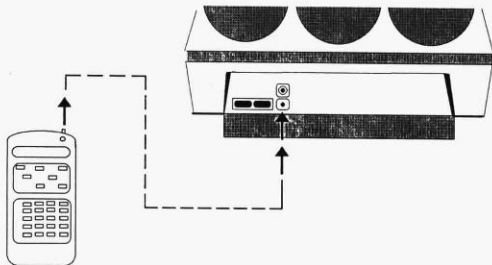
CONTROLLING

2. Terminology of functions on the RCU800.
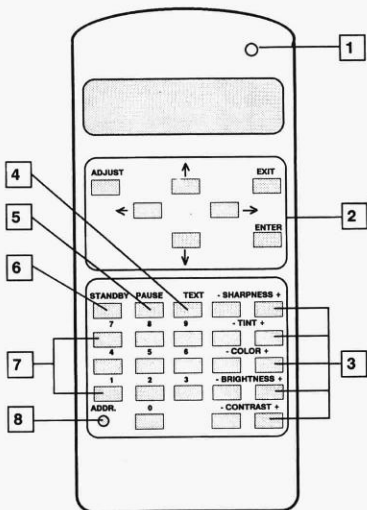
1 **RC operating indicator:** lights up when a button on the remote control is pressed. (This indicator is a visual control for the user of RC operation and battery power)

2 **ADJUSTMENT-SETTINGS KEYS:** these keys are used for picture geometry and convergence adjustments.

3 **PICTURE CONTROLS:** use these buttons to obtain the desired picture level.

4 **TEXT key:** with 'TEXT' off, no information will be displayed during an analog adjustment and no warnings will be displayed. 'TEXT' key is only active in operational mode.

5 **'PAUSE' key:** to stop picture projection for a short time, press button "PAUSE". The image disappears, but full power is retained for immediate restarting.

6 **STANDBY:** to stop picture projection for a longer time without projector power off, press button 'STANDBY' to switch the projector in the standby position.

7 **DIGIT BUTTONS:** direct input selection

8 **PROJECTOR ADDRESS SETTING (max 9):** press button "address", followed by pressing the digit button, 1 to 9.

CONTROLLING

3. Controlling stand alone projector with the RCU800.

A. Selecting the address.

As already explained in the § Projector set up, every projector requires an individual address.

Address display : When pressing with a pencil or other small object in the hole labelled ADDR on the RCU800, the projector's address will be displayed. Now, it is necessary to enter an address with the numeric keys.

Address programming : The address of an individual projector may be programmed into the RCU800 by keying in the address with the num. (With RCU800, only between 0 and 9).

Zero address : If the RCU800 is programmed with an address of 0 (zero), it will control a projector regardless of the projector's address. This feature allows multiple projectors with differing addresses to be controlled by a single RCU800.
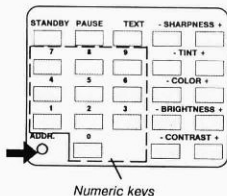
Numeric keys

B. Selecting an input source.

SOURCE Nr	PROJECTOR INPUT	PRESS DIGIT BUTTON
1	VIDEO	1
2	S-VIDEO *	2
3	RGB TTL	3
4	RGsB **	4
5	RGB/S ***	5

With the numeric keys, 1 to 5, on the RCU800, it is possible to select one of the five inputs. Those are :
When a valid and available source is selected, there will be information displayed on the screen about that source. This information includes :
- source number
- horizontal frequency
- vertical frequency

* Input signal Y/C (luma/chroma)
** Input signal: R,G and B with sync on G
*** Input signal: R,G,B and separate sync's

Source information in example :
source 02 = S-Video input signal with horizontal frequency of 15625 Hz and a vertical frequency of 50 Hz.

```
SOURCE  02
Fh  =  15625  Hz
Fv  =  50  Hz
```

CONTROLLING

When the entry is a not valid source number, a warning appears on the screen : *'invalid key entry'*.

WARNING

invalid
key entry
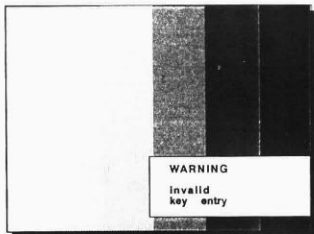
Until software version 2.03 :
When there is something wrong with the source (e.g. no coincidence) the projector will retry to select that source 5 times with an interval of 20 seconds. If no succes, it goes to the Barco start up screen. When reselecting the same source without succes, a message 'source not available' will be displayed.

For software version 2.04 or higher :
When a valid source number is selected, the projector will display this source or it will wait on the selected source number until the source becomes available. No message will be displayed.

WARNING

source not
available
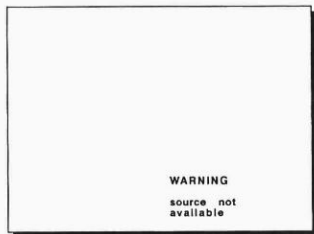
C. Analog picture controls

When an analog picture control is pressed, a bar scale and a number indicator appear on the screen with the function name of the control, e.g. "brightness" above it. The lenght of the bar scale and the number (between 0 and 100) indicate the current memorized setting for this source. The bar scale changes as the + or - buttons of the control are pressed.

Analog settings
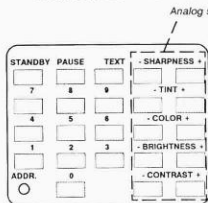
The appearance of the text, bar scale and number can be prevented by pressing the *'TEXT'* key on the RCU800. This button acts as a toggle switch, switching between text 'ON' and 'OFF' each time the button is pressed. The latest position is stored and is recalled every time this source is chosen, even when the power to the projector is switched OFF and ON again.
The analog picture controls can be adjusted with the RCU800 in *'adjustment mode'* as well as in *'operational mode'*.

CONTROLLING

a) Brightness control

Brightness control for Video, S-video and RGB sources.

A correct *'brightness'* setting is important for a good color reproduction.

Adjust the Brightness with the + button and - button until the darkest parts of the picture appear as black.

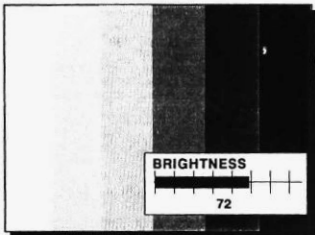A bar scale and number below the bar scale (between 0 and 100) give a visual indication on the screen of the current brightness setting while pressing the + or - buttons. If the bar scale is not visible on the screen, press **'TEXT'** key once and retry the + or - keys.

The scale bar and numeric indicator increase when pressing on the + button (higher brightness) and decrease when pressing on the - button (lower brightness).

b) Contrast control.

Contrast control for Video, S-video and RGB sources.

A correct *'contrast'* setting is important for a good color reproduction.

Adjust the contrast to the level you prefer, according to room lighting conditions.

A bar scale and a number below the bar scale (between 0 and 100) give a visual indication on the screen of the contrast setting while pressing the + or - buttons. If the bar scale is not visible on the screen, press **'TEXT'** key once and retry with the + or - keys.

The bar scale and number indicator increase when pressing the + button (higher contrast) and decrease when pressing on the - button (lower contrast).
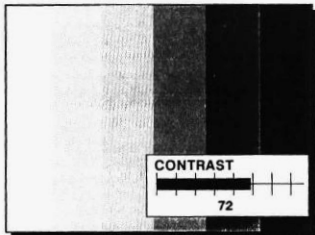
c) Color saturation

Color saturation control for Video and S-video.

Adjust the color intensity of the picture. Use the + and - button on the remote control panel.

A bar scale and a number below the bar scale give a visual indication on the screen of the color setting while pressing the + or - buttons. If the bar scale is not visible on the screen, press **'TEXT'** key once and retry the + or - keys.

The bar scale and numeric indicator increase when pressing on the + button (richer colors) and decrease when pressing the - button (lighter colors).
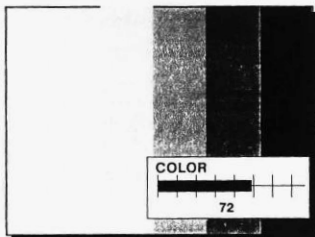
CONTROLLING

d) Tint control

Tint control for Video and S-video.
This control is effective only when using the
NTSC 4.43 or NTSC 3.58 system.
A bar scale and number below the bar scale
(between 0 and 100) give a visual indication
on the screen of the tint setting while press-
ing the + or - buttons. If the bar scale
is not visible on the screen, press the **'TEXT'**
key once and retry the + or - keys.
The bar scale and number indicator in-
crease when pressing on the + button
and decrease when pressing the - but-
ton.

TINT

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e) Sharpness control

Sharpness control for Video and S-video.
A bar scale and a number below the bar
scale (between 0 and 100) give a visual in-
dication on the screen of the sharpness
setting while pressing the + or - buttons.
If the scale bar is not visible on the screen,
press **'TEXT'** key once and retry the + or
- keys.
The bar scale and number indicator in-
crease when pressing on the + button
(sharper picture) and decrease when press-
ing on the - button (softer picture).
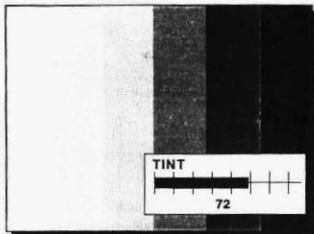

SHARPNESS

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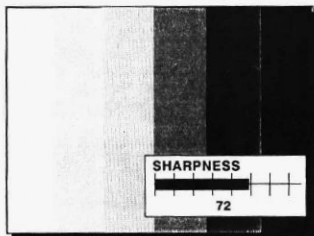
4. Controlling chained projectors with the RCU800.

A. Address setting

line termination switch(es) in ON position
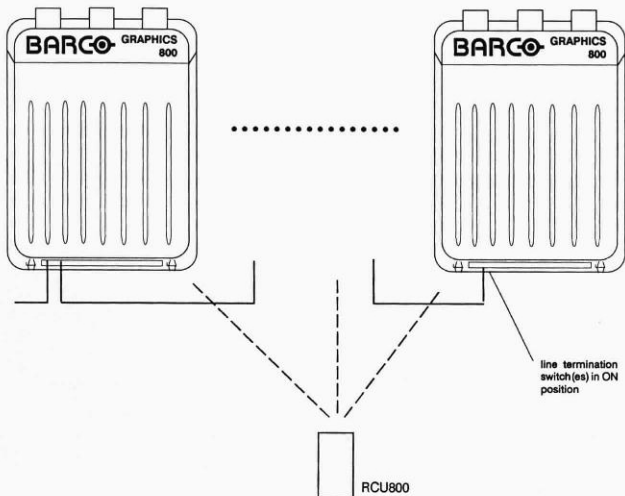
RCU800

Note :
Every projector has its own address, see §Projector set up, so that it is possible to control each projector individually.

Address display : When pressing with a pencil or other small object in the hole labelled ADDR on the RCU800, the projector address will be displayed. Now, it is necessary to enter an address with the numeric keys.

Address programming : The RCU800 is programmable with that individual projector address or with its 'zero address'.

Zero address : master address, independent the hardware set up, for controlling all

Numeric keys

the BARCOGRAPHICS 800's at once. So, the chain of projectors is addressable with the 'zero address' and an individual projector in the chain is addressable with its individual address (set during projector set up). When using that zero address, program the RCU800 as explained above.
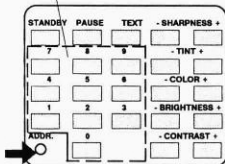
CONTROLLING

B. Selecting an input source

As the projectors have to display the same input source, the RCU800 must be programmed with the 'zero address' before selecting an input source.

SOURCE Nr	PROJECTOR INPUT	PRESS DIGIT BUTTON
1	VIDEO	1
2	S-VIDEO *	2
3	RGB TTL	3
4	RGsB **	4
5	RGB/S ***	5

*   Input signal Y/C (luma/chroma)
**   Input signal: R,G and B with sync on G
***   Input signal: R,G,B and separate sync's

Attention
Once address '0' is pressed all projectors will be controlled until a new address is entered on the RCU800. Once this new address is entered, only the projector with this address will follow the new instructions.

C. Analog picture controls

With the RCU800 programmed with the 'zero address' all BARCOGRAPHICS 800 willl be controlled in the same way. When one projector has to be adjusted, use the individual projector address to control this specific BARCOGRAPHICS 800.
For explanation about the analog controls, see § Stand alone projector controlled with the RCU800.

5. Controlling stand alone and chained projectors with PC or MAC.®

For detailed information about address setting, input selection and analog picture controls, consult the Control 800 software manual.
BARCO order number : for DOS version : 59 75014.
                             for MAC version : 59 75224

CONTROLLING

INSTALLATION ADJUSTMENTS

INSTALLATION ADJUSTMENTS

Overview flow chart installation mode

BARCO

GRAPHICS 800

PROJ. ADDRESS: 001
SOFT. VERSION: 2.0
CONFIG.: FRONT/
CEILING
BAUDR. PC: 9600
TEXT: ON
SERIAL NO.: XXXXXXX

ENTER PASSWORD
XXXX

SOURCE XX

YOU ARE NOW IN THE
ADJUSTMENT MODE
SELECT A PATH FROM
BELOW

GUIDED
RANDOM ACCESS
INSTALLATION
SERVICE

SELECT WITH ↑ OR ↓
THEN <ENTER>

<EXIT> TO RETURN

menu S1
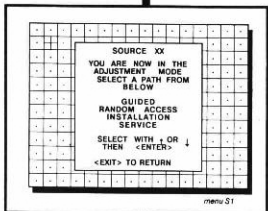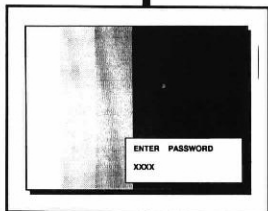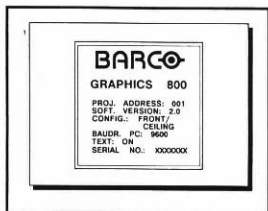
INSTALLATION MODE   **SERVICE MODE**

**RANDOM ACCESS OR GUIDED ADJUSTMENT
MODE**

INSTALLATION ADJUSTMENTS

OPTICAL FOCUSING

1. LOOSEN THE NUT ON THE REAR OF THE XXXXX LENS AND ROTATE THE LENS BARREL TO FOCUS THE CENTER OF THE IMAGE, THEN TIGHTEN THE NUT.
2. LOOSEN THE NUT ON THE FRONT OF THE XXXXX LENS AND ROTATE THE FRONT SECTION OF THE LENS TO FOCUS THE CORNERS OF THE IMAGE, THEN TIGHTEN THE NUT.

\<ENTER\> CONTINUE
\<EXIT\> TO RETURN

menu I1

Menu I1 is repeated 3 times, first in Green, then in Red and then in Blue.

RASTERCENTERING

REDUCE THE CONTRAST AND INCREASE THE BRIGHTNESS LEVEL UNTIL THE RASTER BECOMES VISIBLE BEHIND THE IMAGE ON THE FACE OF EACH CRT.

CENTER THE RASTER ON EACH CRT USING THE ARROW KEYS.

\<ENTER\> CONTINUE
\<EXIT\> TO RETURN
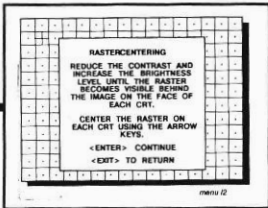
menu I2

Menu I2 is displayed in green. After \<ENTER\> is pressed, only the green raster is displayed and the arrow keys may be used to center the raster on the CRT surface. This menu is also displayed, once in red and once in blue.

CRT PROJECTION ANGLE ADJUSTMENT

BLUE ON GREEN CROSSHAIRS WILL BE DISPLAYED TO ALLOW THE RED AND BLUE CRTS TO BE ALIGNED WITH THE GREEN CRT.

LOOSEN BOLTS A,B,C AND D TO PIVOT THE RED CRT AND BOLTS E,F,G AND H TO PIVOT THE BLUE CRT.

\<ENTER\> CONTINUE
\<EXIT\> TO RETURN

menu I4

CRT PROJECTION ANGLE ADJUSTMENT

CRT PROJECTION ANGLE IS THE FIRST STEP OF STATIC CONVERGENCE ADJUSTMENT.

IT IS CRITICAL THAT THE RASTERS ARE CENTERED ON THE CRT FACES PRIOR TO PERFORMING THIS STEP.
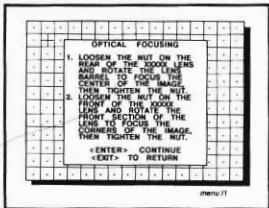
DURING THIS PROCEDURE RED ON GREEN AND THEN,

\<ENTER\> CONTINUE
\<EXIT\> TO RETURN

menu I3

ALIGN CROSSHAIRS

\<ENTER\> CONTINUE
\<EXIT\> TO RETURN

menu I5

LEFT-RIGHT, TOP-BOTTOM FOCUSING

1. TURN THE SCREW MARKED XX TO FOCUS THE IMAGE FROM TOP TO BOTTOM.
2. TURN THE SCREW MARKED XX TO FOCUS THE IMAGE FROM LEFT TO RIGHT.

\<ENTER\> CONTINUE
\<EXIT\> TO RETURN

menu I6

Menu I6 is repeated 2 times, first in Red and then in Blue.

INSTALLATION ADJUSTMENTS

Introduction

After installing the BARCOGRAPHICS 800 and connecting all necessary cables to it, proceed with the installation adjustments.

Press ADJUST key on the RCU800 to enter the *'Adjustment mode'*.

The projector asks to enter your password (if the password mode DIP switch is in the ON position; see also § password mode setting).

Your password contains 4 digits. Enter the digits with the numeric keys on the RCU800.

example : 2 3 1 9 .

For each digit entered, a cross appears on the screen under the displayed text *'enter password'*.

When your password is correct, you get access to the *'Adjustment mode'*. When the entered password is wrong, the following message appears on the screen : *'invalid code entry'*.

The projector stays in operational mode.

Remark : when no password is entered within the first minut, the projector returns automatically to operational mode.

```
Factory programmed password :

        1990
```

ENTER   PASSWORD

XXXX

INVALID   CODE   ENTRY

```
SOURCE  XX

YOU ARE NOW IN THE
ADJUSTMENT   MODE
SELECT A PATH FROM
BELOW

GUIDED
RANDOM ACCESS
INSTALLATION
SERVICE

SELECT WITH ↑ OR ↓
THEN   <ENTER>

<EXIT> TO RETURN
```
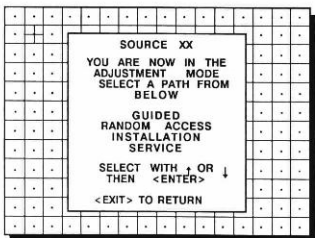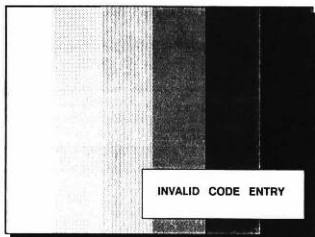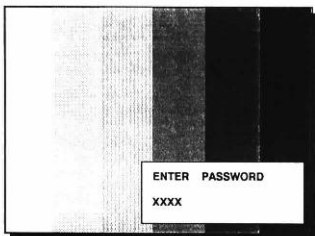
menu S1

INSTALLATION ADJUSTMENTS

Selecting the installation path.

The arrow keys on the RCU800 are used to make menu selections and also vertical and horizontal adjustments. The ENTER and EXIT keys are used to move forward and backward through the menu structure. The ADJUST key is used to return to operational mode.
Installation adjustments contain :

- Optical lens focusing
- Raster centering
- CRT projection angle adjustment
- Left-right, top-bottom focusing

Caution : Installation adjustments should be selected every time the projector has been relocated and/or a different screen size is desired.

Start up of the installation mode.

It will be necessary to perform several mechanical adjustments while in the installation mode. Remove the top cover with the BARCOGRAPHICS 800 label on it, in order to gain access to the adjustment points. (see § Access to controls)

Use the arrow key to highlight INSTAL-LATION and then press ENTER.

When entering the installation mode, the projector will automatically switch to the internal pattern on 15 kHz/50Hz without creating a new adjustment block (more info about adjustment blocks, see appendix B)


```
          SOURCE  XX

   YOU ARE NOW IN THE
   ADJUSTMENT   MODE
   SELECT A PATH FROM
        BELOW

        GUIDED
   RANDOM   ACCESS
    INSTALLATION
       SERVICE

   SELECT  WITH ↑ OR ↓
     THEN   <ENTER>

   <EXIT> TO RETURN
```
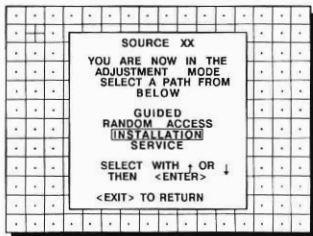
menu S1

ENTER continues to optical focusing (Menu I1)
EXIT returns to the selected source or the BARCO start up screen.
ADJUST returns to operational mode

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INSTALLATION ADJUSTMENTS

Optical lens focusing
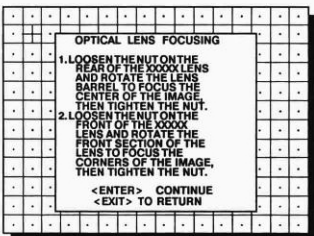
The optical focusing procedure is performed separately for each lens. The appropriate CRT will be switched on as the user proceeds through the optical focusing adjustment sequence.

Each lens has two focus adjustment points, one at the rear of the lens and one at the front. The center of the projected image is focused by loosening the wing nut at the rear end of the lens and rotating the lens barrel until the center of the image is clearly focused. The corners of the projected image are focused by loosening the wing nut at the front end of the lens and rotating the lens barrel until the corners are clearly focused. Repetition of these adjustments may be necessary to optimize optical focusing.
Press **ENTER** key to continue.

```
        OPTICAL  LENS  FOCUSING

1. LOOSEN THE NUT ON THE
   REAR OF THE XXXXX LENS
   AND ROTATE THE LENS
   BARREL TO FOCUS THE
   CENTER OF THE IMAGE,
   THEN TIGHTEN THE NUT.
2. LOOSEN THE NUT ON THE
   FRONT OF THE XXXXX
   LENS AND ROTATE THE
   FRONT SECTION OF THE
   LENS TO FOCUS THE
   CORNERS OF THE IMAGE,
   THEN TIGHTEN THE NUT.

   <ENTER>   CONTINUE
   <EXIT> TO RETURN
```

menu I1

ENTER continues to Raster centering (Menu I2)
EXIT returns to Path Selection (Menu S1)
ADJUST returns to operational mode

center focusing

Corner focusing
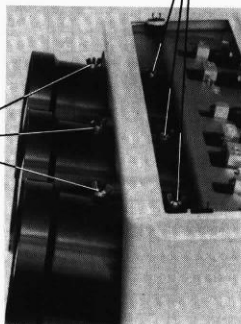
Electrical focusing

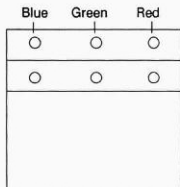The electrical focus for red, green and blue is factory preset. When they have to be readjusted, follow the procedure as described below :
- be sure the lenses are correctly focused.
- open the top cover.
- adjust separately the focus control for red, green and blue for the sharpest image on the screen.

Electrical focusing

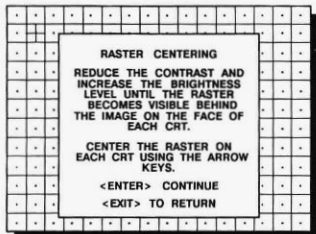| Blue	Green	Red
O	O	O
O	O	O

INSTALLATION ADJUSTMENTS

Raster centering

The raster must be centered on the CRT screen surface of each tube, therefore, it is necessary to look into the lenses.
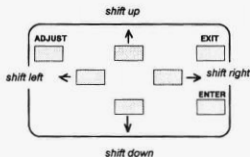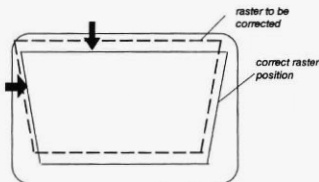
Caution : To avoid eye discomfort while performing these adjustments, reduce the contrast and gradually increase the brightness level until the raster becomes visible behind the image.

Press ENTER to display the raster on the green CRT.

Look into the green lens and shift the raster with the arrow keys until it is centered in the middle of CRT faceplate.

```
RASTER  CENTERING

REDUCE  THE  CONTRAST  AND
INCREASE  THE  BRIGHTNESS
LEVEL  UNTIL  THE  RASTER
BECOMES  VISIBLE  BEHIND
THE IMAGE ON THE FACE OF
EACH CRT.

CENTER  THE  RASTER  ON
EACH CRT USING THE ARROW
KEYS.

<ENTER>   CONTINUE
<EXIT>  TO RETURN
```

menu I3

raster to be corrected

correct raster position

shift up

ADJUST   EXIT

shift left   shift right

ENTER

shift down

Press **ENTER** to activate the raster on the Red CRT faceplate.
Shift the raster with the arrow keys until the raster is centered in the middle of the CRT faceplate.

Press a second time **ENTER** to activate the raster on the Blue CRT faceplate.
Shift the blue raster with the arrow keys until the raster is centered on the CRT faceplate.

Press **ENTER** to continue with the CRT Projection angle adjustment.

> ENTER continues to CRT Projection angle Adjustment (Menu I4)
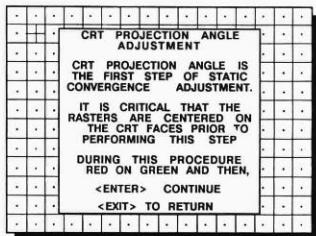> EXIT returns to Optical Focusing (Menu I2)

INSTALLATION ADJUSTMENTS

CRT projection angle adjustment

The projection angle of the red and blue CRTs is dependent on the desired size of the projected image. If the centers of green, blue and red do not coincide, the CRT projection angle must be adjusted. Never try to correct this misalignment with the shift correction or the static convergence controls. These controls may only be applied to correct small errors which cannot be corrected by the CRT angle adjustment.
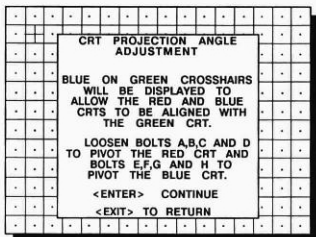
Be sure that the rasters are centered on the CRT face.

Press ENTER to start the CRT angle adjustment procedure. A crosshair (green and red) will be displayed on the screen.

CRT PROJECTION ANGLE
ADJUSTMENT

CRT PROJECTION ANGLE IS
THE FIRST STEP OF STATIC
CONVERGENCE ADJUSTMENT.

IT IS CRITICAL THAT THE
RASTERS ARE CENTERED ON
THE CRT FACES PRIOR TO
PERFORMING THIS STEP

DURING THIS PROCEDURE
RED ON GREEN AND THEN,

<ENTER> CONTINUE

<EXIT> TO RETURN

menu I3

ENTER continues to CRT Projection Angle Adjustment (Menu I4)
EXIT returns to Raster Centering (Menu I2)

CRT PROJECTION ANGLE
ADJUSTMENT

BLUE ON GREEN CROSSHAIRS
WILL BE DISPLAYED TO
ALLOW THE RED AND BLUE
CRTS TO BE ALIGNED WITH
THE GREEN CRT.

LOOSEN BOLTS A,B,C AND D
TO PIVOT THE RED CRT AND
BOLTS E,F,G AND H TO
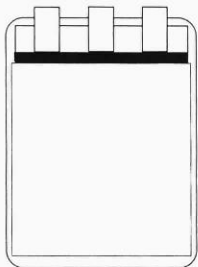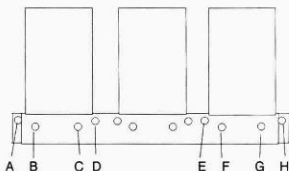PIVOT THE BLUE CRT.

<ENTER> CONTINUE

<EXIT> TO RETURN

menu I4

ENTER continues to the crosshairs alignment
EXIT returns to menu I3, CRT projection angle adjustment.
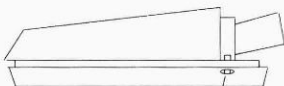ADJUST returns to operational mode.

PROJECTION ANGLE MIS-ALIGNED

PROJECTION ANGLE CORRECTLY-ALIGNED

Blue image   Red image
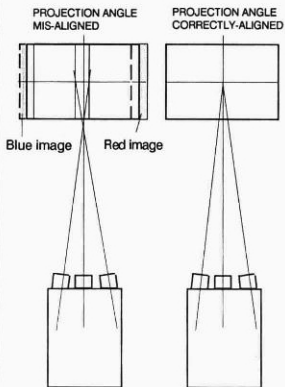
INSTALLATION ADJUSTMENTS

Top view mechanical assembly CRT's

A B C D E F G H

Side mechanical CRT assembly

Slot in cabinet

Loosen bolt A with a 8 mm wrench through the slot in the cabinet (see side view diagram of the projector).
Loosen bolts B, C and D to pivot the red CRT until the center of the red image coincides with the center of the green image. If the angle of the red CRT is corrected, tighten the four bolts.

red crosshair
green crosshair

Move the Red CRT and lens assembly towards the Green CRT.

green crosshair
red crosshair

Move the Red CRT and lens assembly to the outside, away from the Green CRT.


```
ALIGN CROSSHAIRS
<ENTER>  CONTINUE
<EXIT>  TO RETURN
```
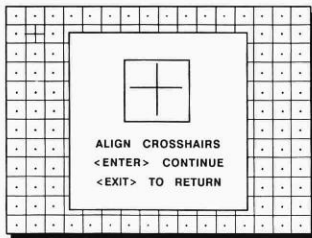
menu I5

ENTER continues to blue and green crosshairs.
EXIT will return to CRT Projection Angle Adjustment, menu I4.

INSTALLATION ADJUSTMENTS
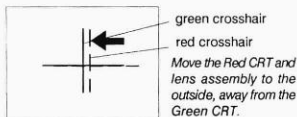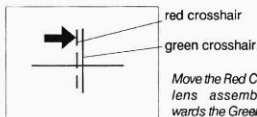
Loosen bolt H with a 8 mm wrench through the slot in the cabinet (see side view diagram of the projector)

Loosen bolts E, F and G to pivot the blue CRT until the center of the blue image coincides with the center of the green image. If the angle of the blue CRT is corrected, tighten the four bolts.
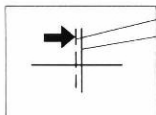
blue crosshair
green crosshair

Move the Blue CRT and lens assembly to the outside, away from the Green CRT.
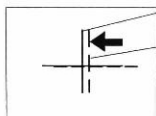
green crosshair
blue crosshair

Move the Blue CRT and lens assembly towards the Green CRT

ALIGN CROSSHAIRS
<ENTER> CONTINUE
<EXIT> TO RETURN

menu I5

ENTER continues with left-right, top-bottom focusing.

EXIT returns to menu I3, CRT projection angle adjustment.

Continue with left-right, top-bottom focusing
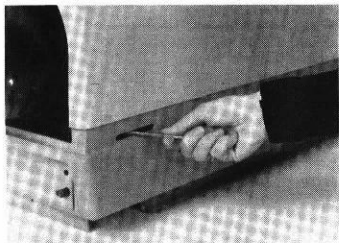
INSTALLATION ADJUSTMENTS

Diagonal image focusing

With the diagonal image focusing corrections, it is possible to obtain uniform focus for the total projected image.
These corrections must be repeated for each color. Menu I6 is repeated 3 times, first for green, then for red and then for blue.

First, be sure that the CRT projection angle is correctly adjusted, otherwise it is not possible to obtain proper overall focus of the image.

xx = screw number indication on screen.

```
DIAGONAL IMAGE FOCUSING

1. TURN THE SCREW MARKED xx
   TO FOCUS THE IMAGE DIAGO-
   NALLY from LEFT (bottom) to
   RIGHT (top).

2. TURN THE SCREW MARKED xx
   TO FOCUS THE IMAGE DIAGO-
   NALLY from LEFT (top) to RIGHT
   (bottom).

        <ENTER> CONTINUE
        <EXIT> TO RETURN
```

menu I6

ENTER continues to the Path Selection menu (Menu S1)
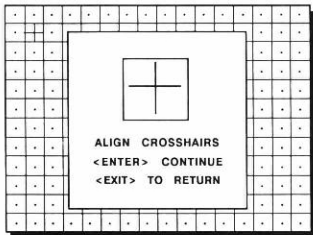EXIT returns to CRT Projection Angle Adjustment (Menu I1)
ADJUST returns to operational mode.

Adjustment procedure :

First,

To perform the diagonal image focusing, be sure the lenses are correctly focused (refer to chapter 'Optical lens focusing)

Proceed now to diagonal image focusing

This adjustment procedure is performed separately for each picture tube.

Menu I6 is repeated 3 times, first for green, then for red and then for blue.

Example: diagonal focusing the green image

- Equalize diagonally the focus from left (bottom) to right (top) by turning screw 00 of the projected color.

- Equalize now diagonally the focus from left (top) to right (bottom) by turning screw 01 of the projected color.

Repeat the same procedure for the red and blue image using the corresponding screws.

To optimize the image focusing, repeat the optical lens focusing.

Screw indication on screen :

	left ⟋ right	right ⟍ left
GREEN	00	01
RED	02	03
BLUE	04	05

INSTALLATION ADJUSTMENTS

LENS

CORNER FOCUSING

CENTER FOCUSING

DIAGONAL IMAGE FOCUSING

RED IMAGE
03   02

BLUE IMAGE
05   04

GREEN IMAGE
01   00
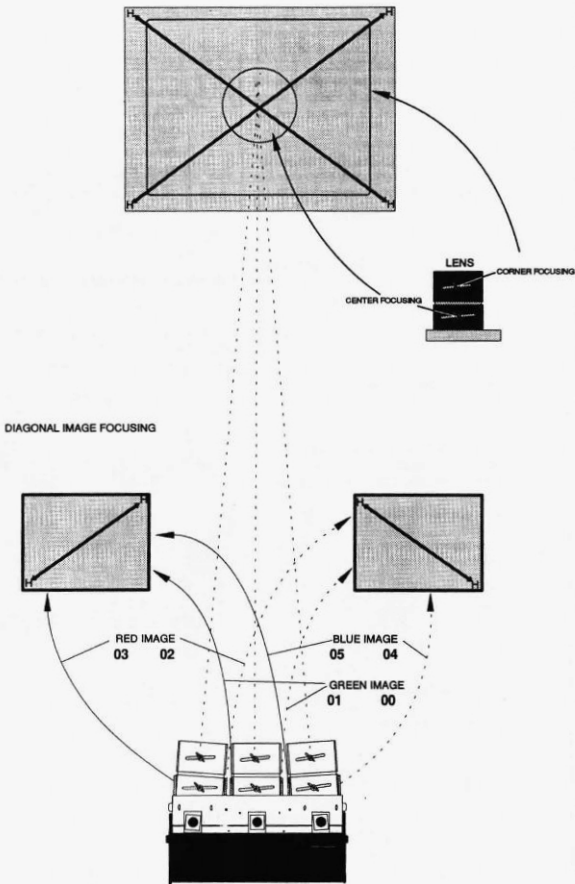
INSTALLATION ADJUSTMENTS

After finishing the installation adjustments procedure, the *'Path selection'* menu S1 returns on the screen. You are now able to start the alignment procedure for the projector. You have the choice between :

- Guided Adjustment Procedure
- Random Access Adjustment Procedure

The result of both procedures will be the same. More explanation about both procedures is given in the owners manual. The following page gives an overview of the image corrections.

```
          SOURCE XX
  YOU ARE NOW IN THE
  ADJUSTMENT      MODE
  SELECT A PATH FROM
        BELOW

        GUIDED
  RANDOM   ACCESS
  INSTALLATION
        SERVICE

  SELECT  WITH ↑ OR ↓
    THEN   <ENTER>
  <EXIT> TO RETURN
```
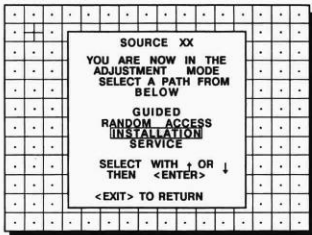
menu S1

ENTER continues to the chosen path.
EXIT returns to operational mode.

BARCO Projection Systems BGR800/270890

INSTALLATION ADJUSTMENTS

Alignment of the projector.

Overview of the corrections.

For detailed information about these corrections and procedures to be followed see owner's manual.
(Ordernumber : 59 75963)

Shift corrections for the Red, Green and Blue image.

Left-Right adjustments
- Vertical center line bow and skew
- Side keystone adjustment
- Side bow adjustment
- Horizontal size adjustment

Top-Bottom adjustments
- Horizontal centerline bow and skew
- Top keystone adjustment
- Top bow adjustment
- Bottom keystone adjustment
- Bottom bow adjustment

Size-linearity adjustments
- Horizontal size adjustment
- Vertical linearity adjustment
- Vertical size adjustment
- Horizontal phase adjustment

Convergence adjustments
- Green only
- Red on Green
- Blue on Green

Blanking adjustment
- Top-Bottom, Left-Right

OPTIONS

IR RECEIVER

RCU800U

HARD WIRED RCU800 OR RCU800U

CONTROL 800 SOFTWARE FOR DOS AND FOR MAC[®]

D9-D9 COMMUNICATION CABLE

OPTIONS

Use of the remote IR receiver.

In combination with the BARCOGRAPHICS 800 without RCVDS 800.

Connect the IR receiver cable to the RCVDS communication port at the rear input panel of the projector. The instructions for the projector can be sent now to the IR receiver with the RCU800. The IR receiver indicates the selected source.

BARCO GRAPHICS 800

To Communication remote RCVDS

IR receiver

RCU800
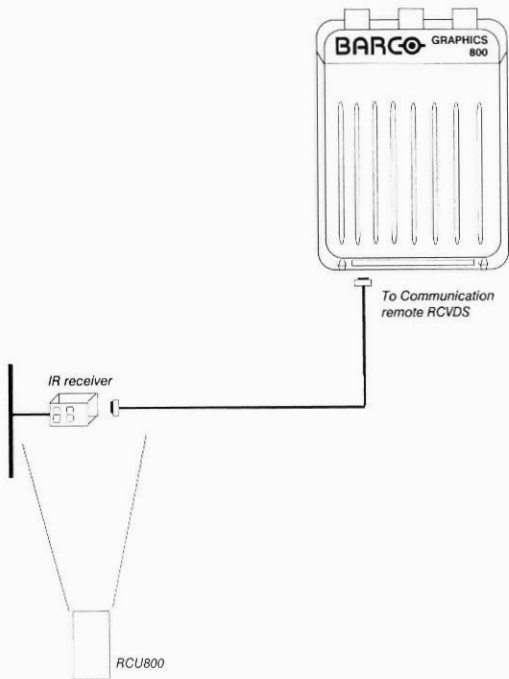
OPTIONS

In combination with the BARCOGRAPHICS 800 with RCVDS 800.

Connect the IR receiver cable to the RCVDS 800 output module. The instructions for controlling the projector can be now sent to this IR receiver unit. The IR receiver indicates the selected source. When chaining multiple RCVDS's, the IR receiver unit has to be connected to the output module of the last RCVDS in the chain.
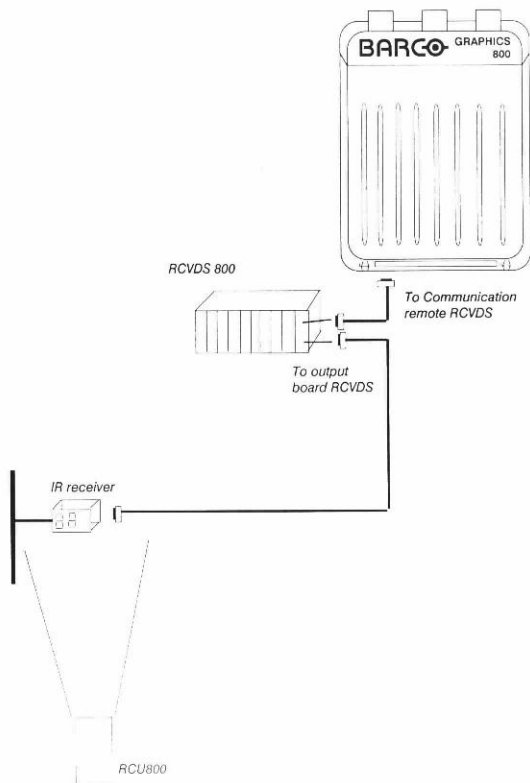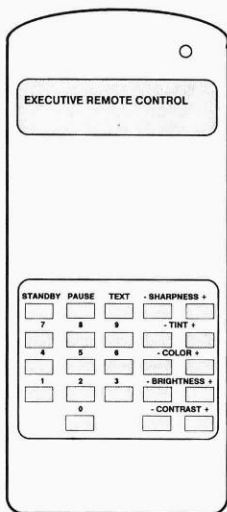
OPTIONS

RCU800U

Executive Remote Contol. (Order number : 98 27440)
Fixed address setting on 'zero address'. Every projector can be controlled with this RCU800U.
No access possible to the *'Adjustment Mode'*.

OPTIONS

Hardwired RCU800 or RCU800U.

The control signals from the RCU800 or RCU800U can be sent to the projector via a wired connection.
When the jack is plugged in, infra red transmission is interrupted.

Preparing your remote cable :

Use a shielded cable with a maximum length of xxxx m and two mini jack connectors of 2.5mm (order number : 31 3043).

- Peel back the vinyl covering of the cable on both sides and twist the wire core.
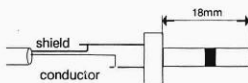
- Solder on both sides of the cable a jack plug as shown in drawing above.
    shield = ground
    conductor = data information

When the cable is ready, plug one side in the remote control and the other site in the connector on the front of the projector labelled 'remote'.
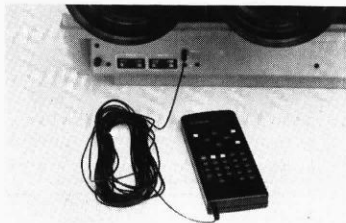
OPTIONS

Control 800 software for DOS and for MAC ®

The software is user friendly designed : mouse control, pull down menus, dialog boxes.

Two main applications are available with this software : remote control and transfering and receiving data of settings.

remote control simulation. Advantage : address range 0 to 255.

adjustment data : where can it be located when a IBM PC (or compatible) or MAC is connected :
- hard memory divice with files of settings.
- the contents of the local memory of the computer.
- the contents of the projector.

Order number DOS version : 98 27530
Order number MAC version : 98 27540

OPTIONS

D9-D9 communication cable

The D9-D9 communication cable is used to form a data communication link between the BARCO 800 series projectors and the RCVDS800, the IR remote receiver 800 or a controlling computer.

Order number for 15 m cable : 98 27560
Order number for 30 m cable : 98 27570

SPECIFICATIONS

SPECIFICATIONS

I. RGB TTL circuit

Input : D9 connector, CGA and EGA compatible.

II. RGB(S) analog circuit

RGsB : for sync on Green or
RGBS : for separate sync, Hor and Vert sync or composite sync.

Input : 5 BNC connectors
Red : 0.7 Vpp ± 3 dB
Blue : 0.7 Vpp ± 3 dB
Green : 0.7 Vpp ± 3 dB
      1 Vpp ± 3 dB if sync on green
Vert sync : 1 Vpp ± 3 dB or 4 Vpp ± 3 dB
Hor sync / comp. sync : 1 Vpp ± 3 dB or 4 Vpp ± 3 dB

III. Deflection circuits

Vertical deflection
Frequency : from 45 Hz to 120 Hz

Retrace time : < 200 us

Horizontal deflection
Frequency : from 15 kHz to 90 kHz

Retrace time : < 2.5 us

IV. High voltage

Stabilized EHT : 34.7 kV

V. Power requirements

- 220 V ac - 240 V ac or 110 V ac internal switchable
- frequency independence between 40-100 Hz
- power consumption : 350 W

VI. Display

Projection tubes : - 8" high resolution square projection tubes
                - liquid cooled system
                - Red, Blue and Green CRT's

Lenses : high resolution F1.06 Hybrid lenses

Image format : 3 x 4

Image dimensions (standard version)
min : 120x90 cm (4x3 ft)
max : 600x450 cm (20x15 ft)

Throw distance : (see table)

SPECIFICATIONS

Max. light output : At 10% peak white : 825 lumen
At 20% peak white : 575 lumen

Screen application : flat, parabolic or cylindrical screen

Geometric distortion: ± 1% in circle equal to image height, ± 1.5% outside

Convergence : calibration using 25 independent zones.

VII. Mechanical characteristics

Dimensions : see diagram

VIII. Mounting

Table standard or ceiling; front or rear projection possibility.

Adaptation ceiling-table : incorporated switches
Adaptation front-rear : incorporated switches

IX. Safety

IEC 950

X. Environment

The projector is designed to be used within the following operating range.

Max. operating range
Temperature : 0° - 40°C
Humidity : 0 - 90% non condensing
Altitude : 0 - 3000 m (0 - 10000 ft)

Storage
Temperature : - 30° to 65°C

XI. Weight

60 kg (133 lbs)

Notes

APPENDIX

APPENDIX

APPENDIX A : BARCO CEILING MOUNT SUPPORT

This appendix gives only an overview of the contents of the installation guidelines and also some overview drawings.

The total installation guidelines for the BARCO ceiling mounting support can be ordered by BARCO. BARCO order number : 59 75693.

I. Contents of the installation guidelines.

1. Mounting instructions for the upper support to the ceiling.(Fig. 1)

a. Position of the upper support on the ceiling.
b. Mounting of the 4 screwed rods on the upper support.

2. Projector placement on lower support.(Fig. 3)

a. Projector placement on support.
b. Location of controls for projector-position correction.

3. Mounting instructions of the cord to lift up the projector.

a. Mounting the cord support on the upper support.(Fig 2)
b. Cord insertion between the upper and lower support.(Fig.4-5)
c. Cord fixation (Fig. 4)

4. Lifting up and fixing the lower support (with projector) on the screwed rods.

5. Alignment of the projector-support assembly

a. Projector water-level adjustment.
b. Adjustment "projector axis perpendicular" on the screen surface.
c. Projector movement for- or backward.

APPENDIX A : BARCO CEILING MOUNT SUPPORT

II. Exploded view of BARCO ceiling mount support.

Fig. 2

Fig. 1

Fig. 2

Fig. 5

Fig. 4

Fig. 3
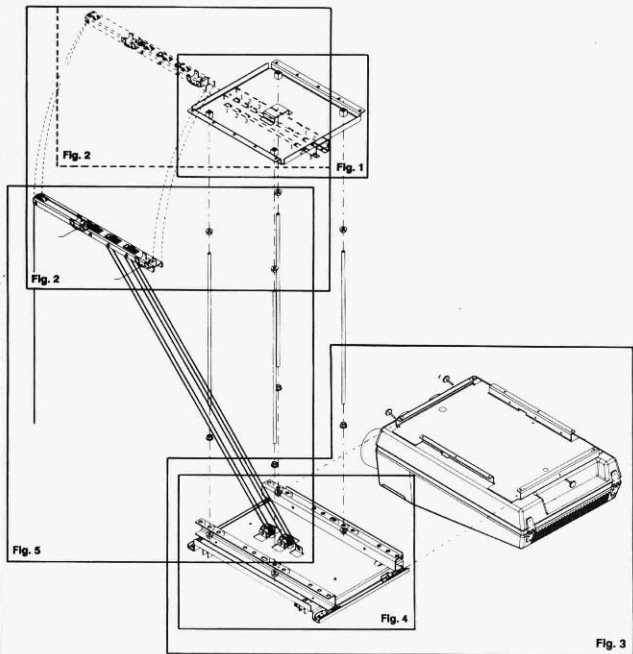
APPENDIX A : BARCO CEILING MOUNT SUPPORT

III. Overview drawing of the total system.
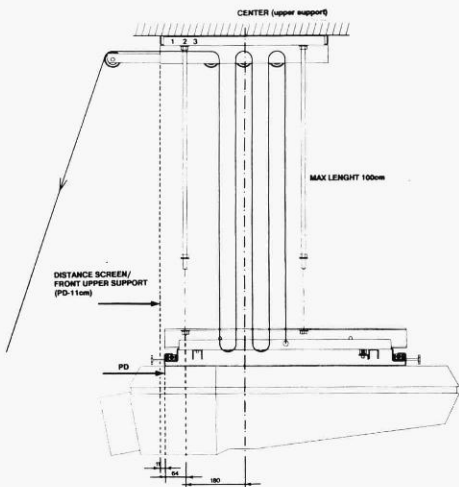
APPENDIX A : BARCO CEILING MOUNT SUPPORT

IV. Projector-position corrections

Water-level adjustment

Projector axis adjustment

APPENDIX A : BARCO CEILING MOUNT SUPPORT

IV. Lay-out upper support

APPENDIX B : ADJUSTMENT BLOCKS

Adjustment Blocks

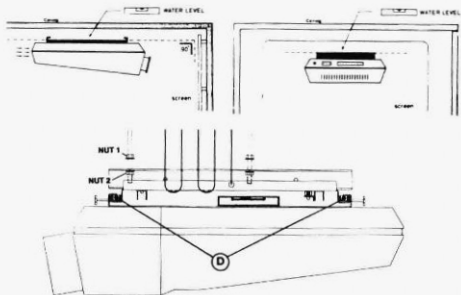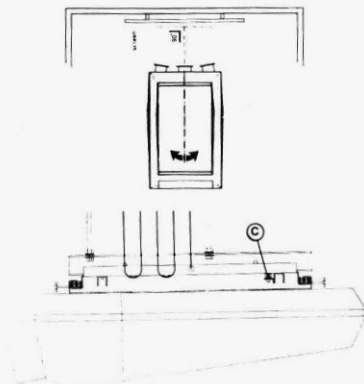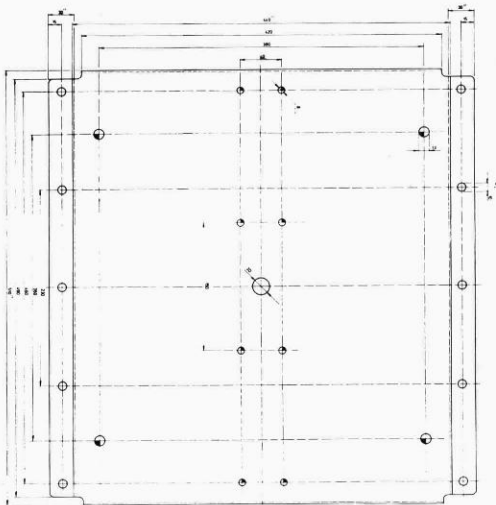As the Barcographics 800 is digitally controlled, all geometry and convergence adjustments are stored in the projector's memory as numeric values. These numeric values are used to control digital potentiometers which in turn, control the projector. Each source connected to the projector has a unique set of adjustment data which is automatically downloaded into the projector's digital potentiometers as the source is selected. This set of adjustment data is referred to as an *"adjustment blocks"*.

An adjustment blocks is automatically created for a source when the source is first connected to the projector and the adjust mode is entered. If other sources have already been connected to the projector and geometry and convergence adjustments have been performed on these sources, the projector will use Linear Digital Interpolation to create a new block for the new source. This block will provide an initial set of adjustments for the new source that have been calculated by the projector from "previous experience".

The projector's memory has the capacity to store 38 adjustment blocks. The adjustment block consists of two parts, the block header and the data representing the convergence and geometry adjustments of the source the block corresponds to. The block header contains the basic characteristics of the source and the projector configuration used to display the source.

Block Header	*example of block header*
Block number	01
Source number	01
Horizontal frequency	15.6 kHz
Vertical frequency	50 Hz
Input type	video
Scan inversion switch configuration	front/ceiling

The data representing the geometry and convergence adjustments for the source follows the block header.

APPENDIX C : SOURCE NUMBERS 90 - 99

Source numbers 90 - 99

Source numbers 90 - 99 do not correspond to physical inputs to the projector or RCVDS800. They are used to assign an additional adjustment block to a source. This additional adjustment table may contain different geometry and convergence settings, sync fast/slow positions and enhanced blue on/off settings. The relationship between source numbers 0 - 9 and 90 - 99 (projector with RCVDS) or 1 - 5 and 91 - 95 (stand-alone projector) is shown in the diagram below.

source input 0 ——— source number 0 — Block header A
——— source number 90 — Block header A, different analog settings

source input 1 ——— source number 1 — Block header B
——— source number 91 — Block header B, different analog settings

source input 2 ——— source number 2 — Block header C
——— source number 92 — Block header C, different analog settings

source input 9 ——— source number 9 — Block header J
——— source number 99 — Block header J, different analog settings

The alternate adjustment block for sources 0 - 9 (projector with RCVDS) or 1 - 5 (stand-alone projector) is activated by selecting the corresponding source number 0 - 9 (projector with RCVDS) or 1 - 5 (stand-alone projector). Once this source number is selected, the alternate block of adjustment data is in use and may be modified via the adjust mode of the projector. The alternate adjustment block is automatically stored.

Follow the steps below to create a second adjustment block for a source between 0 and 9.

1. Select the source between 0 and 9 that the second adjustment block is to be created for.

2. Select the corresponding source number between 90 and 99. The adjustment block for the source number between 0 and 9 is copied to the corresponding source number between 90 and 99.

3. Enter the adjust mode and make any desired changes (geometry, convergence, sync fast/slow, enhanced blue on/off) to the second adjustment block.

4. Exit the adjust mode.

Note : the above also applies to source number 1 - 5 and 91 - 95 of a stand alone projector (no RCVDS)

APPENDIX D: MESSAGES, WARNINGS AND FAILURES

> SOURCE 01
> Fh= 15.6 kHz
> Fv= 050 Hz

When selecting a new source, information about this source will be displayed on the screen. Source number, horizontal and vertical frequentie of the displayed source.

> SOURCE 01

Annoncement of the selected source.

> enter
> password
> x x x x

Message to enter your password. Password contains 4 digits, which must be entered with the numeric keys of the RCU800.

> text on

> text off

These messages will be displayed on the screen when pushing the TEXT key.
Text ON : the 'bar scale indication' will be enabled during the change of an analog control in 'operational mode'.
Text OFF : the 'bar scale indication' will be disabled during the change of an analog contro in 'operational mode'.

> PROJECTOR
> ADDRESS :
> 003

Indication of projector address when touching the little hole labelled 'ADDRESS' on the RCU800 with pencil or other small object.

> WARNING :
> input not
> available

Warning in combination with the RCVDS 800. This warning will be displayed when selecting an input slot of this RCVDS where the input board is missing.

> WARNING :
> source not
> available

The input is a valid input but the source is not connected to the input terminals or the input source is switched off.

APPENDIX D:MESSAGES, WARNINGS AND FAILURES

| WARNING :

invalid
key entry | When a wrong key is pressed on the RCU800. |

| WARNING :

invalid
code entry | Message when the entered password is wrong. |

| WARNING :

end of ad-
just range | When trying to exceed the adjustment limits. |

| WARNING :
input no
longer
available | Message will be displayed when the input source is no longer available. Immediate hereafter appears the following message : *'check input signal or select new source'*. |

| check in-
out signal
or select
new source | Message will be displayed after the message *'input no longer available'*. It asks to check the connections between the source and the projector or to check if the source is switch on. |

| WARNING :
input se-
lector not
available | It warns you to check the power connection of the RCVDS800. RCVDS 800 is switch off or is unplugged from the wall outlet. Next message will appear immediatly on the screen : *'go to stand-by'*. |

| WARNING :

go to
stand by | Projector will go in stand-by when the RCVDS 800 is not longer available. |

| WARNING :
invalid
frequency
input | Entered frequency or frequency of source is out of the projector's range. |

APPENDIX D: MESSAGES, WARNINGS AND FAILURES

WARNING : default settings loaded in the E2PROM	Adjustment settings are lost. Reset via PC or MAC, or readjust image.

| table is
deleted | Message to inform that selected table is deleted. This message will be followed confirm message where the user has to anser on. |

| <ENTER>
to confirm
<EXIT>
to return | Confirm message for deleting tables. ENTER will delete the table. EXIT will return to the selected table. |

| FAILURE
invalid
RWI soft
version | Wrong software version in your projector. Call your local dealer. |

| FAILURE
invalid
TAC soft
version | Wrong software version in your projector. Call your local dealer. |

| FAILURE

I2C error
addr. : 7FH3 | Hardware failure. Call a qualified service technician for repair. |

| FAILURE
short
circuit on
I2C bus | Hardware failure. Call a qualified service technician for repair. |

| FAILURE
RCVDS com-
munication
error | Serial communication error between RCVDS800 and projector. |

FAILURE TAC commu- nication error	Hardware failure. Call a qualified service technician.

FAILURE RWI commu- nication error	Hardware failure. Call a qualified service technician.