Installation/Operating Instructions

220V VCB Targa Electric Video Conferencing Background by Draper

Caution
① Read instructions through completely before proceeding.
② Follow instructions carefully. Installation contrary to instructions invalidates warranty.
③ Unit should be accessible for complete removal should background become damaged or should other service be required.
④ Unit should be installed (leveling a carpenter’s level).
⑤ Nothing should be fastened to dowel or background.
⑥ Operating switch(es) packed separately in carton. Do not discard with packing material.
⑦ Unit operates on 220V, 50 Hz., 1 pH current.
NOTE: Unit has been thoroughly inspected and tested at factory and found to be operating properly prior to shipment.

These instructions are meant as a guide only. They do not imply any responsibility on the part of Draper, Inc. for improper installation or faulty workmanship at the jobsite.

Hanging Video Conferencing Background

General:
When locating background and checking clearance for unit’s operation, remember background is centered in case. Handle case carefully to protect its finish. Regardless of mounting method, unit should be positively and securely supported so that vibration or even abusive pulling on the background will not cause case to work loose or fall. Installer must insure that fasteners used are of adequate strength and suitable for the mounting surface chosen.

Suspended Installation:
Suspend units from holes in endcaps as shown. “S” Hooks, chains (or cable) and turnbuckles should be provided by installer. “S” Hooks should go through the front holes on the endcaps (see drawing on page 2), and both ends of the “S” Hooks should be crimped for additional safety. Chains should be attached to beams or other structural members. Turnbuckles should be adjusted so unit hangs level.

Wall Installation:
Mount through holes in back of endcaps as shown. Installer should furnish screws, toggle bolts, molly bolts, nylon or lead anchors as required.

Wall Installation with 15 cm Extension Brackets:
Mount the brackets (not included—see diagram on page 2) using hardware recommended for “Wall Installation” (above). Then, suspend the unit from the front holes with “S” Hooks (as in “Suspended”). For added safety, be sure to crimp both ends of the “S” Hooks so the unit cannot come off. For a more rigid installation, mount the unit from the back holes to the front of the bracket by using the screws and nuts provided with the brackets.

Wall or Ceiling Installation with Optional Floating Brackets:
Optional Floating Brackets should be located on studs or joists. The bracket then attaches at any almost any point along the case. For details, see separate instruction sheet that ships with the Floating Wall Bracket.

Recessed Installation:
Recess should permit access for removal of unit if necessary. Unit may be mounted as in suspended or wall installation.

Electrical Connections
Unit operates on 220V, 50 Hz., 1 pH current. Duty cycle: On 28 seconds/Off 4 minutes.

Junction box is located inside left endcap and coverplate is secured to endcap with two screws which may be removed with a Torx-head or small straight-blade screwdriver. Junction box contains brown, black and blue pigtail leads and green internal ground wire, per wiring diagram on reverse.

Unit is shipped with internal wiring complete and control switch(es) fully boxed. Wire connecting unit to switch(es) and switch(es) to power supply should be furnished by installer. Please Note: Unit must be installed in accordance with the requirements of the Local Building Codes, the Canadian Electrical Code (CEC), CAN/CSA C22.1 and the National Electric Code (NEC), NFPA 70. An appropriate disconnect device shall be provided as part of the building installation. Please Note: Do NOT wire motors in parallel.

All operating switches should be “off” before power is connected.
Plug-in power cord option available with built-in low voltage motor.

For Reconfiguration/Conversion of Non-detachable Power Cord to Field Wiring for Models TAR-28, TAR-29 and TAR-30 Only:
① Disconnect cord plug from outlet.
② Remove junction box cover.
③ Connect wire nuts from black, white and green wires.
④ Remove power cord and strain relief from unit.
⑤ Connect the black motor wire to “hot” supply wire.
⑥ Connect white motor wire to “neutral” supply wire.
⑦ Connect green/yellow wire to “ground” supply wire.
⑧ Replace junction box cover.

Optional Floating Mounting Bracket

Operation
Before operating unit remove tape securing background and dowel to roller. If background hangs out of case 203-228 mm, tape has probably been broken by rough handling in shipment, allowing it to “unwrap” one turn around the roller. Manually wrap back around the roller without turning the roller itself.

220V SINGLE STATION CONTROL—3-position UP-OFF-DOWN switch permits operation to be stopped at any point. Factory adjusted limit switches automatically stop background when fully down or fully up.

220V MULTIPLE STATION CONTROL—(Not CE Approved) Switches are similar in appearance to 220V Single Station Control. Background stops when switch is released and may be restarted in either direction. Factory adjusted limit switches stop background automatically when fully down or fully up.

24V MULTIPLE STATION CONTROL—Three-button UP-STOP-DOWN switches stop at any point desired, operate in any sequence. Factory adjusted limit switches automatically stop background when fully down or fully up.

Installer should incorporate an all-pole disconnect in the fixed wiring.

KEY OPERATED SWITCHING—Two kinds of key-operated switches are optionally available with this unit. ① The key-operated power supply switch controls power to the unit and switches. When it is “off”, the switches will not operate unit. Key may be removed from the switch in either “on” or “off” position.
① A three-position key switch permits the unit to be operated directly by key. In this case, the unit’s operator must always have a key.

RS232/Ethernet—Serial communication and network communication optionally available with wall switches, RF or IR remote.

Plug & Play™—Provided with handheld IR remote control transmitter and 3m cord. No wiring necessary except to connect to RS232. Unit is equipped with a handheld remote or 3-position operating switch (see below). Three positions (up-off-down) permit operation to be stopped at any point. Factory adjusted limit switches automatically stop unit when fully down or fully up.

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If you encounter any difficulties installing or servicing your VCB Targa, call your dealer or Draper Inc., Spiceland, Indiana, (765) 987-7999 or fax (765) 987-7142.
**Limit Adjustments (Standard Motors/ Quiet Motors)**

*Please Note: Screen limits are factory set for optimum performance of the screen. Any adjustment of these limits could void the warranty. Please check with Draper prior to resetting screen limits.*

(Height adjustments are made at the motor using white/yellow screws)

Tools needed: Flashlight, small flathead screwdriver/Allen wrench (4mm or 5/32").

△ **CAUTION: Always be prepared to stop screen off manually when new adjustment is being tested. Screen may be severely damaged if viewing surface is allowed to run too far up or too far down.**

The motor limit screws are normally located on the audience left of screen roller, and the viewing surface rolls off the back of the roller. If the viewing surface is coming off the front of the roller (motor on left), or the motor is on the audience right of the screen roller (with viewing surface rolling off the back), reverse the following instructions.

### "DOWN" LIMIT ADJUSTMENT

To Reduce Screen Drop

1. Raise screen surface about 1' above desired setting and turn off.
2. Turn the DOWN limit screw clockwise (three screw turns = ½ roller revolution).
3. Test by running screen down and repeat steps 1 and 2 until desired position is reached.
4. Repeat steps 2 and 3 until desired position is reached.

△ **CAUTION: Do NOT allow the dowel to wrap up over the roller when the screen is running up! This could damage the screen.**

**Screen is Running Too Far Up**

1. Lower screen surface about 1' below desired setting and turn off.
2. Turn the UP limit screw clockwise (three screw turns = ½ roller revolution).
3. Test by running screen up.
4. Repeat steps 1 through 3 until desired position is reached.

### "UP" LIMIT ADJUSTMENT

To Increase Screen Drop

1. Run screen down about 1' and turn off.
2. With the down switch on, turn the DOWN limit screw counterclockwise (three turns of screw equals ½ roller revolution) to increase drop.
3. Test by running screen up about 1' and back down to new down limit.
4. Repeat steps 2 and 3 until desired position is reached.

**Screen Needs to Run Up More**

1. Run screen down about 1' and turn off.
2. With the up switch on, turn the UP limit screw counterclockwise (three turns of screw equals ½ roller revolution).
3. Repeat steps 1 and 2 until desired position is reached.

### Limit Adjustments (Built-in Low Voltage Motors)

*Please Note: Screen limits are factory set for optimum performance of the screen. Any adjustment of these limits could void the warranty. Please check with Draper prior to resetting screen limits.*

(Height adjustments are made from wall switch)

1. Connect the switch to the motor via the terminal blocks, or via the modular port using four conductor modular cable. When using modular cable, the cable connectors MUST NOT be crimped in reverse, as with standard telephone cable.
2. Set the slide switch to the lower position. Press and hold the DOWN button on the switch to move the viewing surface to the desired lower limit. If the screen moves in the opposite direction, release the DOWN button and press and hold down the STOP button for four seconds. This will reverse the operation of the UP and DOWN switches.
3. Move slider switch into center position. Wait a couple of seconds.

**Please Note: If you move the slider switch from down to up in one motion it sets the two limits in the same position.**

1. Set the slide switch to the higher position. Move the viewing surface to the desired upper limit by pressing and holding the UP button on the wall switch.
2. Return the slide switch to the center position to return to normal operation.
3. To set the viewing surface to an alternate format position, move the viewing surface to the desired position and press the STOP button. Press and hold STOP for at least three seconds to record the position.

**Please Note:** Pressing and releasing the UP button on the switch will move the screen to its upper limit. Pressing and releasing the DOWN button will move the screen to its lower limit.

While the motor is in motion, pressing STOP for less than two seconds will stop the viewing surface at its present position.

Once the motor is stopped, pressing the STOP button will move the viewing surface to its alternate format position.

Pressing and holding the STOP button, when the motor is at rest or in motion, for at least three seconds will record a new alternate format position.

### Accessing Built-In Low Voltage Control Unit (LVC-IV)

**To access the Built-In LVC-IV:**

1. Remove the two (2) Torx head screws from the motor end of the screen housing.
2. Remove the access panel with the LVC-IV from the screen housing.

**PLEASE NOTE:** Built-In LVC-IV will increase overall case length by 1½".

**Position**

<table>
<thead>
<tr>
<th>Function</th>
</tr>
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<tbody>
<tr>
<td>DOWN</td>
</tr>
<tr>
<td>UP</td>
</tr>
<tr>
<td>CENTER</td>
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**Normal Operation**
**Methods of Installation**

- **Wall Mounted**: Fasteners for wall mounting by others. Appropriate hardware provided by installer. Suggested for recessed installations.
- **Suspended**: Fasteners for wall mounting by others. Crimp S Hooks for suspended installation. 22 mm hole for electrical connection. Mounting angle and hardware by others. Suggested for recessed installations.

**Optional Ceiling Opening Trim Kit**

*(Dims-Side View)*

**Types of Installation**

- **15 cm Extension Bracket**
- **Wall Mounted**
- **Suspended**

**Case Dimensions***

59mm

150mm

22mm

134mm

Fabric width + 192 mm

Background

96mm

*Built-In LVC-IV will increase overall case length by 1½*. 

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Wiring Diagrams (Standard and Quiet Motors)

Please Note: Do not wire motors in parallel.

Single Station Control

Internal Screen Wiring
- Blue-220v (Common)
- Brown-220v (Down)
- Green-Yellow (Motor Ground)

control switch

Dashed wiring by installer

Neutral

220v, 50 Hz. or 60 Hz.

Multiple Station Control

Internal Screen Wiring
- Blue 220v (Common)
- Brown 220v (Down)
- Black 220v (Up)
- Green-Yellow (Motor Ground)

control switches

Dashed wiring by installer

Neutral

220v, 50 Hz. or 60 Hz.

Wiring Diagrams—Plug & Play 220V Motor

(Low Voltage Control Built Into Motor)

Single Low Voltage Control

Multiple Low Voltage Controls

Internal Screen Wiring
- White (Neutral)
- Black
- Green (Ground)

Data Cable

Wall Switch, RF or IR Receiver, or integrated control system

Internal Screen Wiring
- White (Neutral)
- Black
- Green (Ground)

Data Cable(s)

Wall Switch(es), RF or IR Receivers, or integrated control systems

External LVC-IV - Single or Multiple Projection Screen Wiring Diagram

INTERNAL SCREEN WIRING

Blue (Common)
- Black (Up)
- Brown (Down)
- Green-Yellow (Motor Ground)

White—Common to screen & 220V AC Neutral
- Red—to screen (directional)
- Brown—to screen (directional)
- Black—to 230V AC-Hot
- Yellow—to 230V AC-Hot

Location of key operated On-off switch if furnished.

Dashed wiring by electrician, Low voltage wiring by others

Built-in Low Voltage Motor: Switch-to-Motor—Dry Contacts or Data Cable connection

Please Note: 5V DC must be connected to be able to set limits using the wall switch.

Data Cables to switches or to additional motors can be plugged into any of the three open jacks.

Wiring Diagrams—220V Motor and Quiet Motor with Built-in Low Voltage Controller (LVC-IV)

Single Low Voltage Control

Multiple Low Voltage Controls

Internal Screen Wiring
- White (Neutral)
- Black
- Green (Ground)

Data Cable

Wall Switch

Wall Switch, RF or IR Receiver, or integrated control system

Internal Screen Wiring
- White (Neutral)
- Black
- Green (Ground)

Data Cable(s)

Wall Switch(es), RF or IR Receivers, or integrated control system

Please Note: Although both Dry Contact and Data Cable connections are shown, you should only use one connection type per motor.

Please Note: This Splitter/Jack is located inside the motor-end endcap of your screen. To access, remove access panel from endcap.

Please Note: 5V DC must be connected to be able to set limits using the wall switch.

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