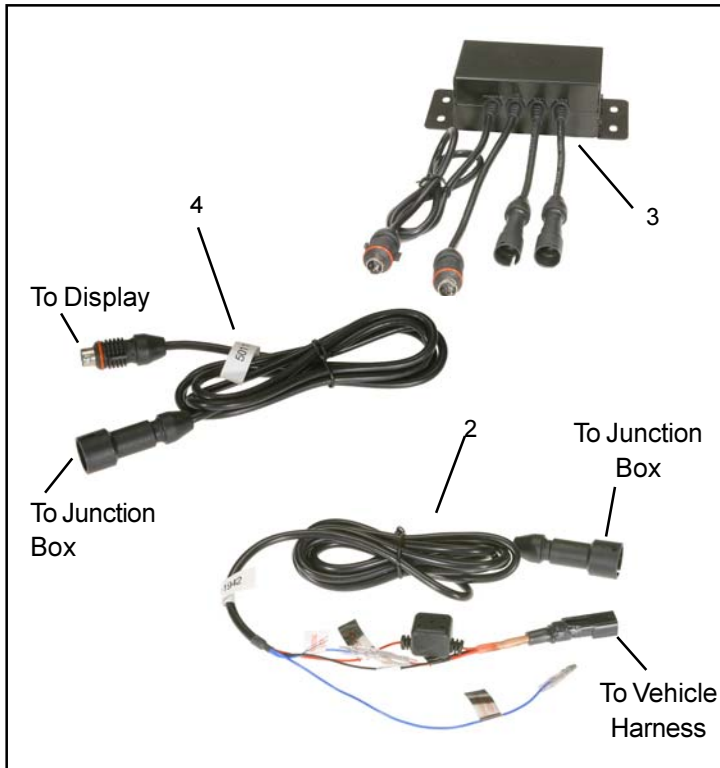




Installation Instructions

Flat Panel Display
Installation Kit Piece Nos.
801409 & 801486 and
Mounting Bracket Kit
Piece Nos. 801491,
801492, 801493 & 801494



Flat Panel Kit Piece Number 801486 consists of the following:

Item	Description	Qty
1	Flat Panel Display Pc. No. 801409	1
2	Power Harness	1
3	Junction Box	1
4	Display Harness	1

Figure 1 Flat Panel Display and Installation Kit

Mounting Bracket Kit Piece Numbers 801491, 801492, 801493 and 801494 consists of the following:

Item	Description	Qty
5	Mounting Bracket	1
6	Tubing Clamp	4
7	Pan Head Threadroll Screw (#8-32)	1
8	Pan Head Plastite® Screw (#8-16)	4
9	Flat Head Plastite® Screw (#8-16)	*2

*Quantity of 3 for kit piece nos. 801491 & 801494

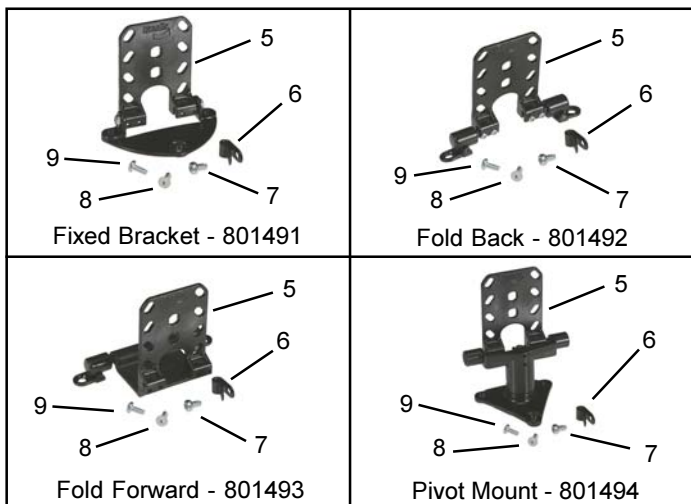


Figure 2 Flat Panel Display Mounting Kits

DESCRIPTION

This instruction sheet is used to install the Bendix® Flat Panel Display piece number 801409, Flat Panel Display Installation Kit piece number 801486 and Mounting Bracket Kit piece numbers 801491, 801492, 801493 and 801494.

IMPORTANT! PLEASE READ AND FOLLOW THESE INSTRUCTIONS TO AVOID PERSONAL INJURY OR DEATH:

When working on or around a vehicle, the following general precautions should be observed **at all times**.

1. Park the vehicle on a level surface, apply the parking brakes, and always block the wheels.
2. Stop the engine when working around the vehicle.
3. If the vehicle is equipped with air brakes, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle.
4. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in manner that removes all electrical power from the vehicle.
5. When working in the engine compartment the engine should be shut off. Where circumstances require that the engine be in operation, **EXTREME CAUTION**

should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated, or electrically charged components.

6. Never connect or disconnect a hose or line containing pressure; it may whip. Never remove a component or plug unless you are certain all system pressure has been depleted.
7. Never exceed recommended pressures and always wear safety glasses.
8. Do not attempt to install, remove, disassemble or assemble a component until you have read and thoroughly understand the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
9. Use only genuine Bendix replacement parts, components, and kits. Replacement hardware, tubing, hose, fittings, etc. should be of equivalent size, type, and strength as original equipment and be designed specifically for such applications and systems.
10. Components with stripped threads or damaged parts should be replaced rather than repaired. Repairs requiring machining or welding should not be attempted unless specifically approved and stated by the vehicle or component manufacturer.
11. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.

PRELIMINARY CONSIDERATIONS

The vision system installation will differ from cab to cab. To achieve the best installation, first consider where to install the display and also how to route the harnesses.

FLAT PANEL DISPLAY

There are 4 mounting options available for the flat panel display; the fixed bracket, fold back bracket, fold forward bracket and swivel bracket. The fixed bracket fits a wide range of mounting surfaces and dash configurations. The fold back bracket allows the display to fold backward and down when not in use while the fold forward bracket allows the display to be folded forward and down when not in use. The swivel mount folds forward and back and also provides the maximum flexibility permitting the display to be adjusted to nearly any viewing angle needed. See Figure 3.

OVERVIEW

Prior to installation, spend time exploring the cab of your truck and experimenting with different mounts for your display. Not all brackets will work in all dash locations. Before installation consider where and how the display will be mounted. Also, consider if the display will need to be moved and who will be using the display before finalizing the display location. Displays used for side/rear vision purposes can be mounted at the discretion of the end user or installer. Please use the following guidelines to optimize your installation.

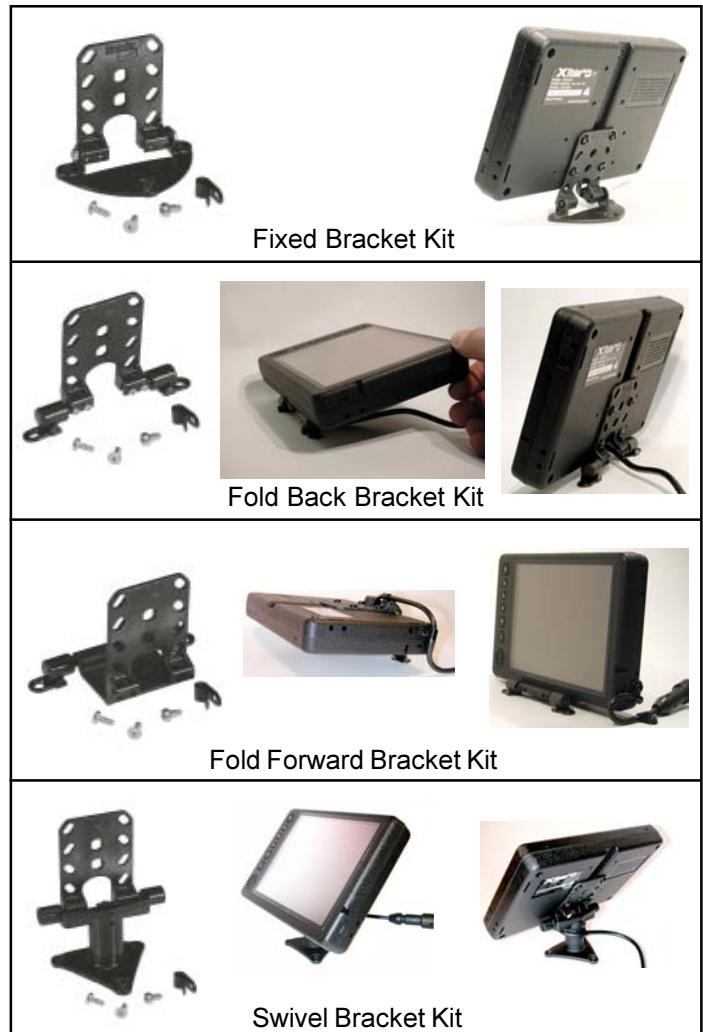


Figure 3 Display Mounting Bracket Configuration and Kits

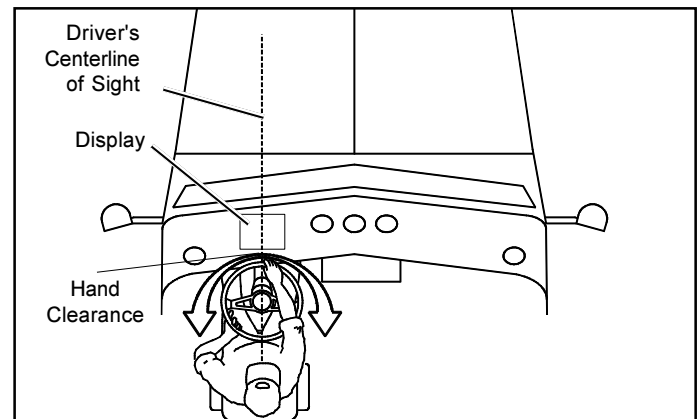


Figure 4 Dashboard Considerations

DISPLAY USED FOR NIGHT VISION

Width of dashboard, steering wheel position and sight lines

To mount the display on the dashboard, there must be room to install the display so that it does not contact the windshield or block the windshield defrosters. The display should be positioned so that it is outside the driver's sight lines to the road and highway signals or signs when not in use for night vision. The display must also be positioned so that it does

not interfere with the driver's ability to turn the steering wheel, access controls or view any gage or display. When mounting, make sure the display is as close to being in line with driver both square and horizontal. See Figure 4.

CHOOSE THE DISPLAY LOCATION

Based on the factors described in **Preliminary Considerations** and the limitations of your cab, decide if display will be mounted overhead or on the dashboard. Be sure that the display buttons can be reached by a person seated in the normal driving position.

MOUNTING BRACKET INSTALLATION

1. Select the correct mounting bracket and placement.
2. Using the four Pan Head Plastite Screws(8) secure the mounting bracket to the back of the display. The mounting bracket kits and configurations are shown in Figures 2 and 3.

DASHBOARD INSTALLATION

POSITION THE DISPLAY

1. Turn the truck ignition on and build the system air pressure. Be sure the seat is properly adjusted for the driver.
2. With the driver seated and belted, determine a location on the dashboard where the display will not impede the driver's sight or normal operation of the vehicle.
3. Place the display in the chosen location and with a pencil mark the front of the display mounting bracket(5).
4. Establish the driver's centerline of sight. See Figure 4.

NOTE: Sometimes the center of the steering wheel is also the centerline of the driver. If the center of the steering wheel is not the "true" centerline of the driver, use the center of the driver's seat as the driver's centerline.

5. Transfer the driver's centerline to the dash, where the display will be mounted.

NOTE: If possible the centerlines of the driver and of the display should line up.

6. Align the flat panel display mounting bracket with the centerline of the driver.

MOUNT THE DISPLAY

1. Using a center punch or marker and the mounting bracket as a template, mark the display mounting bracket mounting holes.
2. Inspect the area under the dashboard for electrical wires, tubing, or instruments.
3. Drill 9/64 inch diameter holes in the dashboard.
4. Secure using the Flat Head Plastite Screws(9). Place the wire lead from the display into the tubing clamp(6) and secure to the bracket when mounting. Use a separate hole in the mounting bracket or mount to the dash. Do not secure the tubing clamp(6) under the LCD mounting

screw. If the mounting bracket is adjustable, ensure that there is enough slack in the wire harness for display movement.

5. Torque the screws to approximately 20 in-lbs.

NOTE: The torque of the screws depends on the composition and thickness of your dashboard. If your truck does not have a plastic dashboard, substitute metal machine screws for the Plastite® screws. If the thickness of the dashboard is less than 1/8 inch, additional material or another fastening method will be necessary.

HEADLINER INSTALLATION

HEIGHT OF DRIVER AND PREFERRED SEAT POSITION

If used with an IR camera these variables will determine if an overhead mount can be used. The display should be mounted so that the flat panel display is in his/her peripheral vision to minimize head movement. Ideal overhead mounting conditions should result in a look-up angle of 6 to 24 degrees. See Figure 4.

POSITION THE DISPLAY

1. Turn the truck ignition on and build the system air pressure. Be sure the seat is properly adjusted for the driver.
2. With the driver seated, determine the location on the headliner where the display will not disturb the driver's line of sight.
3. Determine the driver's centerline of sight. Refer to Figure 4.

NOTE: Sometimes the center of the steering wheel is also the centerline of the driver. Use a plumb bob to transfer the center point from the steering wheel to the headliner.

If the center of the steering wheel is not the "true" centerline of the driver, use the centerline of the driver's seat.

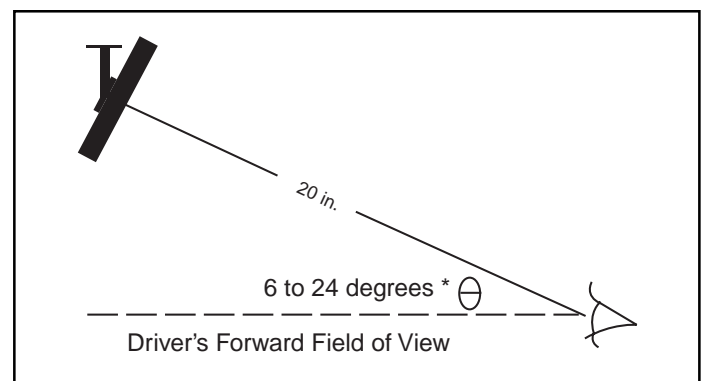


Figure 5 Optimal Overhead Mount Sight Distance
* The smaller the angle between the driver's forward field of view and line of sight to the display, the better the results.

- Transfer the driver's centerline to the headliner, where the display will be mounted.

NOTE: If possible the centerlines of the driver and the display should line up. Refer to figure 4.

- Position the display on the headliner approximately 20 in. away (or as close as possible to 20 in. away) from the driver's eyes. See Figure 5.

MOUNT THE DISPLAY

- Using a center punch or marker, mark the display mounting bracket mounting holes.
- Inspect the area for electrical wires, tubing, or instruments.
- Drill 9/64 inch diameter holes in the headliner.
- Secure using the Flat Head Plastite® Screws(9). Place the wire lead from the display into the tubing clamp(6) and secure to the bracket when mounting. Do not secure the tubing clamp at the holes that secure the mounting bracket to the display. If the mounting bracket is adjustable, ensure that there is enough slack in the wire harness for display movement.
- Torque the screws to approximately 20 in-lbs.

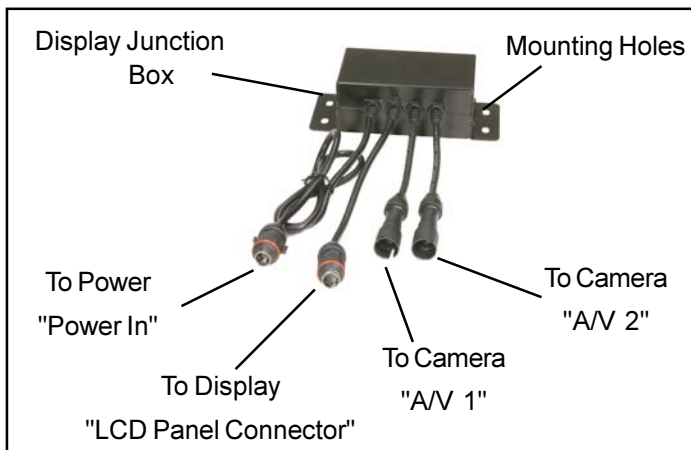


Figure 6 Display Junction Box

NOTE: The torque of the screws depends on the composition and thickness of your headliner. If necessary metal machine screws can be substituted for the Plastite® screws. If the thickness of the headliner is less than 1/8 inch, additional material or another fastening method will be necessary.

ATTACH THE DISPLAY HARNESS AND JUNCTION BOX

- Plug the male connector of the display harness(4) into the female lead from the display. **Note:** The display harness should route toward the windshield. See Figure 6.
- Locate the display junction box(3) between the camera(s) and flat panel display. Secure the display junction box(3) in a suitable location using double sided tape or four sheet metal screws. See Figure 6.

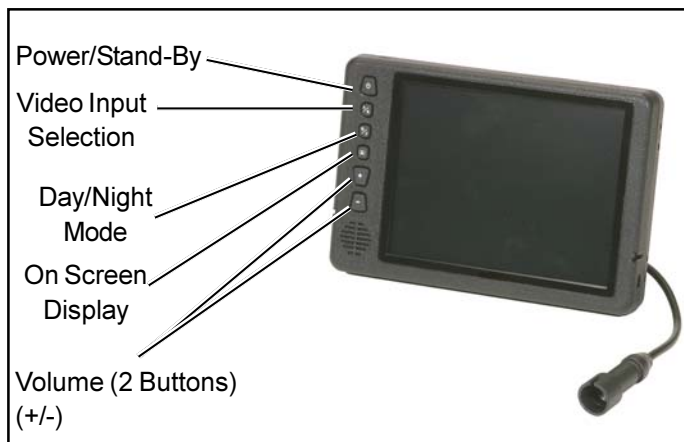


Figure 7 Display Controls

DISPLAY USED FOR SIDE/REAR VISION

When installing the flat panel display for daytime vision usage the location of the display is at the installer's discretion. The procedures for mounting of the display either on the dashboard or on the headliner will be the same, however centering the display with driver's line of sight is not necessary, and is not recommended. The display unit should be positioned outside the area swept by the windshield wipers and outside the driver's sight lines to the road and highway signs and signals.

FLAT PANEL DISPLAY CONTROLS

Power/Stand By: There are two possible operating modes for turning the unit off/on. In the manual mode, the power button is used to turn the unit off/on, and in the stand-by mode, the unit automatically turns on only when 12 V is applied to the stand-by trigger.

The power button features dual illumination (bright and dim). In installations where the unit is not wired for stand-by operation and power is applied to the unit, the button will dimly glow when the unit is off. Illumination switches to full intensity when the unit is turned on.

A/B Input Select Button: This toggles the active display image back and forth between AV1 and AV2 inputs.

Day/Night Mode: Toggles the unit between "day" and "night" illumination modes. This is a one touch way to make the display bright or dim.

On Screen Display Button: This accesses the on-screen display menu for the four LCD picture adjustments. The first press of the button access the brightness adjustment. The volume +/- controls adjust the level which is indicated in a bar graph at the bottom of the screen. Each consecutive press of the button accesses the adjustment screen for each picture adjustment. If no buttons are pressed within 6 seconds the unit will exit the on screen display mode.

Volume +/- Buttons: Adjusts the volume of the built in audio speaker (when enabled). This is not available when viewing in the IR mode.