

Initial Operation of the D16

The initial operation starts with connecting the power supply (see section «Network and Power Connection, Additional Cables» in the D15 Camera Manual). The first access follows the procedure described in the same manual in the «Initial Operation of the Camera» section. All other tasks require access to the camera's user interface in the browser. Enter the camera's IP address into the address bar of the browser (user "admin", password "meinsm"; password must be changed upon first login – camera software V5.1.x and higher).

1. Enter Type of Lens Bridge and Lenses

Open the Admin Menu > Hardware Configuration > Image Sensor Configuration dialog and select the type of lens bridge you installed. Next, select the lenses you installed for the image sensors in Hardware Configuration > Lens Configuration. This step is required so the camera can apply the proper distortion correction methods for the installed lenses.

2. Adjust the Lens Focus

Remove the dome before proceeding. Check the live image from the camera in the browser. Activate the focusing aid in the browser (Focusing Aid quick control, Activated value).



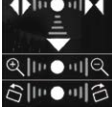
Carefully turn the lens by hand in clockwise or counter-clockwise direction until the red area of the focusing aid is as small as possible. Except D16-Panorama/180°: Switch to the other image sensor (Camera Selection quick control) and repeat the process, if required.

Once the focus is adjusted properly, deactivate the focusing aid again (Focusing Aid quick control, Disabled value). Note: Due to the lens effect of the dome, the focus of the B237 tele lens is shifting slightly once the dome has been mounted. Before mounting the dome, the tele lens should be turned about 90° in counter-clockwise direction (as seen from the lens' front). Make sure that you check the focus of the live image in your browser with the dome installed and re-adjust the lens, if required.



3. Reboot the Camera and Reset the Image Settings

Reboot the camera (Admin Menu > General Tasks > Reboot) and then reset the image settings and all views to the factory defaults (Manage Settings > Load Image Factory Defaults quick control). If required, adjust the image settings.



Only Pano/Fix: Adjust the dual image using the on-screen control (fig. on the right; see also D15 Camera Manual, «Adjusting the Panorama Image (D16-Pano Only)»).

4. Save the configuration

In the browser, select the Manage Settings quick control and set Store Entire Configuration as value. The camera stores the configuration in the permanent camera memory so that the settings will be applied at the next camera reboot.

Boot Options of the D16

By default, the camera starts as DHCP client and automatically tries to get an IP address from a DHCP server. To start the camera in a mode different from the default mode, you can activate the boot menu of the camera.

1. Preparing the Camera

- Disconnect the camera's power supply.
- Make sure that you have the custom tool with magnet (item 1.8) at hand.
- Reconnect the power supply of the camera.

2. Activating the Boot Menu

The red LED lights up 5 to 10 seconds after establishing the power supply and will stay on for 10 seconds. Briefly press the magnet of the custom tool onto the spot indicated by the red circle in the figure. The camera enters the boot menu, ready for selecting one of the boot options. The LED now flashes once and repeats the flash signal after pausing for one second (the number of flashes indicates the current boot option). To go to the next boot option, briefly press the magnet again onto the designated spot (< 1 sec). After the last boot option, the camera returns to the first option (LED flashes once).



LED flashes	Boot Option	Meaning	Audio Confirmation*
1 x	—	This option is not used on this camera model.	—
2 x	Factory Defaults	Starts the camera with factory defaults (factory default IP address, users and passwords will not be reset).	Boing
3 x	Automatic IP Address	Starts the camera as DHCP client and tries to obtain an IP address from a DHCP server. If a DHCP server cannot be found or no IP address can be obtained, the camera starts with its factory default address.	Boing Boing
4 x	Recovery System	Starts the camera with the recovery system, e.g., in order to recover from a failed update of the camera software.	Alarm Sound

*Only on cameras with audio option and installed speaker.

3. Selecting a Boot Option

Press the magnet longer (> 2 sec) onto the indicated position. The camera confirms the selection by flashing rapidly three times. You can now remove the magnet. After 20 sec, the camera will confirm the selection by playing a sound according to the table above.

If nothing is selected, the camera will resume its normal boot process after a certain time.

Important Notes

Safety Warnings

Notes on Installing:

- This product must not be used in locations exposed to the dangers of explosion.
- Make sure that you install this product as outlined in Chapter 2, «Installation» of the corresponding manual. A faulty installation can damage the camera!
- When installing this product, make sure that you are only using genuine MOBOTIX parts and MOBOTIX connection cables.
- Only install this product on suitable, solid materials that provide for a sturdy installation of the fixing elements used.



Electrical installation: Electrical systems and equipment may only be installed, modified and maintained by a qualified electrician or under the direction and supervision of a qualified electrician in accordance with the applicable electrical guidelines. Make sure to properly set up all electrical connections.



Electrical surges: MOBOTIX cameras are protected against the effects of small electrical surges by numerous measures. These measures, however, cannot prevent the camera from being damaged when stronger electrical surges occur. Special care should be taken when installing the camera outside of buildings to ensure proper protection against lightning, since this also protects the building and the whole network infrastructure.



Max. power consumption of attached extension modules: The power consumption of all attached MxBus modules must not exceed 3 W. When attaching modules to the MxBus connector and the USB socket, the power consumption of all attached modules must not exceed 4 W, if the camera is powered by PoE class 3. If PoE class 2 is used, the power consumption of all attached modules must not exceed 1 W!



Never touch the lenses: Due to the high performance of the D16, the area of the image sensor can get quite hot, especially when the ambient temperature is also high. This does not affect the proper functioning of the camera in any way. For this reason, the product must not be installed within the reach of persons without the dome.



Power off before opening the camera: Make sure the power supply to the camera is disconnected before opening the camera housing (e.g., when inserting or exchanging lenses, lens units and SD cards).



Network security: MOBOTIX products include all of the necessary configuration options for operation in Ethernet networks in compliance with data protection laws. The operator is responsible for the data protection concept across the entire system. The basic settings required to prevent misuse can be configured in the software and are password-protected. This prevents unauthorized parties from accessing these settings.



Legal Notes

Legal aspects of video and sound recording: You must comply with all data protection regulations for video and sound monitoring when using MOBOTIX products. Depending on national laws and the installation location of the D16, the recording of video and sound data may be subject to special documentation or it may be prohibited. All users of MOBOTIX products are therefore required to familiarize themselves with all applicable regulations and to comply with these laws. MOBOTIX AG is not liable for any illegal use of its products.



Disposal

Electrical and electronic products contain many valuable materials. For this reason, we recommend that you dispose of MOBOTIX products at the end of their service life in accordance with all legal requirements and regulations (or deposit these products at a municipal collection center). MOBOTIX products must not be disposed of in household waste! If the product contains a battery, please dispose of the battery separately (the corresponding product manuals contain specific directions if the product contains a battery).



Disclaimer

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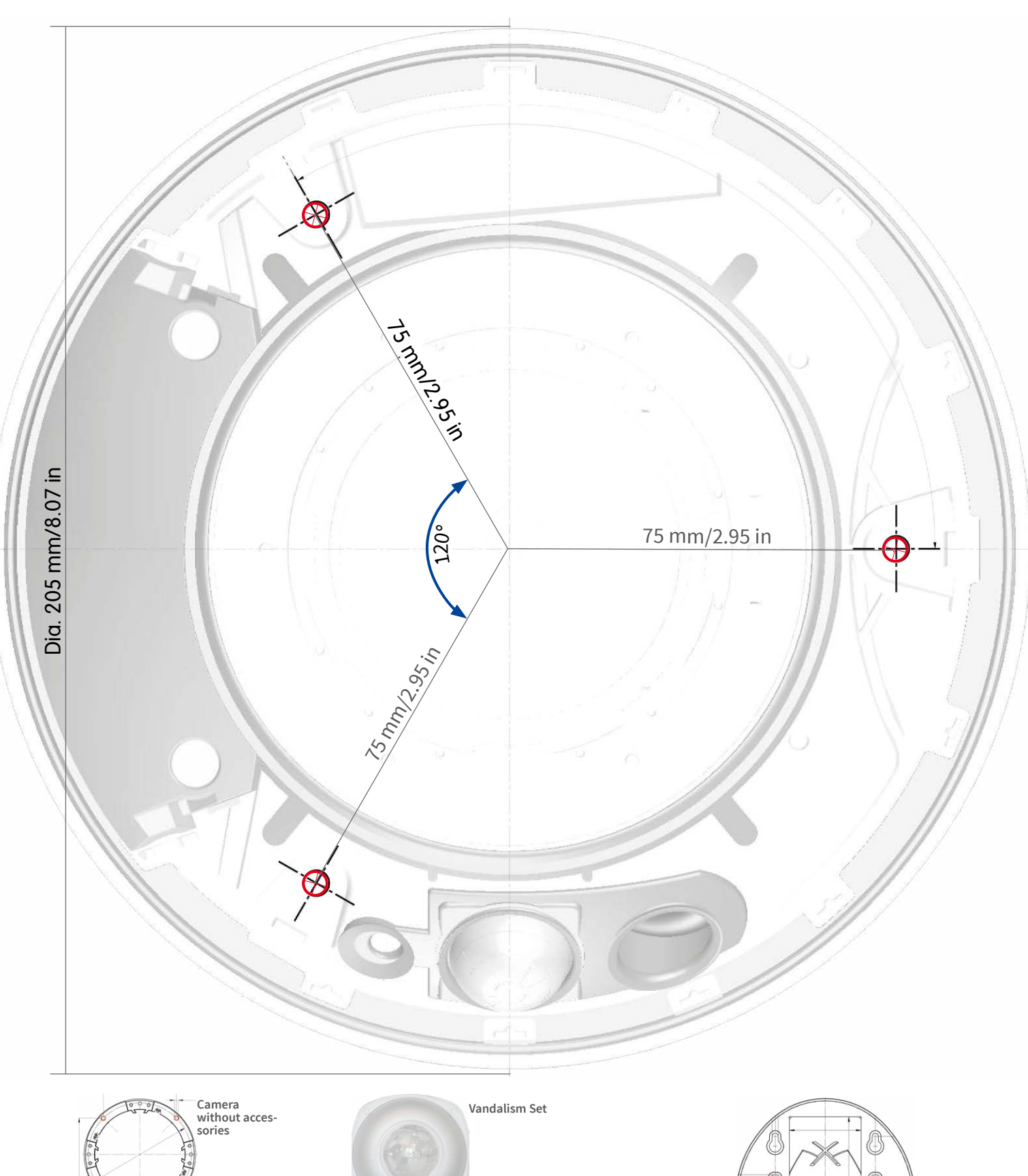


Technical Specifications D16

Model Versions	Mx-D16A/B* (any comb. of Day/Night/LPF sensor modules) *Variant Mx-D16B supports MOBOTIX MxBus modules
Lens Options	MX-B036 to MX-B237 (20 to 135 mm in 35 mm format), 103° to 15° horizontal angle of view
Min. Illumination	Color sensor (6MP): 0.1 Lux at 1/60 s, 0.005 Lux at 1 s Black&White sensor (6MP): 0.02 Lux at 1/60 s, 0.001 Lux at 1/1 s
Image Sensor	1/1.8" CMOS, 6MP, progressive scan
Max. Image Size	Color: 3072x2048 (6MP), 6144x2048 (12MP) Black&White: 3072x2048 (6MP), 6144x2048 (12MP)
Image Formats	3072x2048 (6MP), 2592x1944 (5MP), 2048x1536 (QXGA), 1920x1080 (Full-HD), 1280x960 (MEGA), 1280x720 (HD), 1024x768, 800x600, 768x576 (D1-PAL), 704x576 (TV-PAL), 640x480, 384x288, 320x240, 160x120, custom formats
Max. Frame Rate	MxPEG (max): 42@HD (1280x720), 34@Full-HD, 24@QXGA, 15@5MP, 12@6MP, 6@2x6MP M-JPEG (max): 26@HD (1280x720), 13@Full-HD, 9@QXGA, 5@5MP, 4@6MP, 2@2x6MP H.264 (max): 25@Full-HD, 20@QXGA
Video Codec	MxPEG, M-JPEG, JPEG (max. output size 6MP) H.264 (max. output size QXGA, bandwidth limitation applicable)
ONVIF	ONVIF-S (camera software V5.2.x and higher, 2 nd half of 2018)
Internal DVR	MicroSD card (SDXC, SDHC pre-installed)
External Video Ring Buffer	Directly on NAS or PC/Server, no additional recording software required
Software (Included)	MxManagementCenter video management software
Image Processing	Backlight compensation, automatic white balance, image distortion correction, panorama correction, video motion detection, MxActivitySensor
Virtual PTZ	Digital pan/tilt/zoom, continuous up to 8X

Alarm/Events	Video Motion detection, MxActivitySensor, external signals, temperature sensor, PIR, microphone, shock detector (with firmware version 5.0.1 and higher), notification via e-mail, FTP, IP telephony (VoIP, SIP), visual/sound alarms, pre- and post-alarm images
Microphone and Speaker	Integrated microphone and speaker
Audio Functions	Lip-synchronous audio, two-way communication, audio recording
Interfaces	Ethernet 100Base-T, MiniUSB, MxBus*, inputs/outputs and RS232 via accessories *Only variant Mx-D16B
Video Telephony	VoIP/SIP, two-way communication, remote controlling using key codes, event notification
Security	User/group management, HTTPS/SSL, IP address filter, IEEE 802.1x, intrusion detection, digital image signature
Certifications	EN55032:2012, EN55022:2010; EN55024:2010, EN61000-6-1:2007, EN61000-6-3:2007+A1:2011, EN61000-6-4:2007+A1:2011, AS/ NZS CISPR22:2009+A1:2010
Power Supply	Year-round Power-over-Ethernet (IEEE 802.3af); PoE class variable
Power Consumption	Typ. 5 W
Power Consumption of External Devices	At MxBus: max. 3 W, at USB: max. 2.5 W, total max. 4 W The power consumption of the camera will increase accordingly!
Protection Classes	IP54 and IK10 IP66 and IK10 with Outdoor Wall Mount IP66 and IK10+ with Vandalism Set
Operating Conditions	-30 to 60 °C/-22 to 140 °F
Dimensions/Weight	Diameter x Height: 205 x 108 mm (D16), 205 x 125 mm (D16-Panorama/180°, D16-DNIGHT); weight: approx. 750 g/1.65 lb (including lenses)
Standard Delivery	Housing (high-resistance composite, PBT-PC), white, two shock-resistant domes (transparent), mounting supplies, wrenches, 50 cm/19.69 in patch cable, software, MicroSD card (installed)

Drilling Template for Installation Without Accessories



Manuals and drilling templates: www.mobotix.com > Support > Download Center > Documentation > Manuals