

네트워크 카메라

제품 사용 설명서

SNP-0230RH

A급 기기(업무용 방송통신기자재)

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네트워크 카메라

제품 사용 설명서

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- 시스템 운용과 관련 없는 프로그램을 실행하여 시스템이 잘못된 동작을 한 경우
- 시간 경과에 따른 제품의 변화 또는 사용 중 자연적 마모에 의한 이상

❖ 제품의 외관, 사양등은 성능 개선을 위해 예고 없이 변경될 수 있습니다.

❖ 최초 관리자 ID는 “admin”이며, 비밀번호는 “4321” 입니다.

- 해킹 방지를 위해 Web 화면 최초 접속후 Default로 설정된 비밀번호를 반드시 수정 바랍니다.
- 안전하게 개인정보를 보호하고, 개인정보도용 피해를 예방하기 위해 3개월 마다 주기적으로 비밀번호를 변경하세요.
- 부주의한 비밀번호 관리로 인한 보안 및 기타 문제의 책임은 사용자에게 있으므로 각별히 주의하세요.

안전을 위한 주의사항

제품을 올바르게 사용하여 위험이나 재산상의 피해를 미리 막기 위한 내용입니다. 반드시 지켜 주시기 바랍니다.

경고 	지키지 않았을 경우 사용자가 사망하거나 중상을 입을 수 있습니다.	주의 	지키지 않았을 경우 사용자가 부상을 당하거나 재산상의 손해를 입을 수 있습니다.
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전원 관련

경고 	전원 및 신호선 연결 시 외부 연결 단자를 확인하고 연결하세요. 전원을 잘못 연결하면 화재, 감전, 고장의 원인이 됩니다.	연기가 나거나 이상한 냄새가 날 때는 사용을 중단하세요. 이때는 곧바로 전원을 분리 후 서비스 센터에 연락 해주세요. 그대로 계속 사용하면 화재, 감전의 원인이 됩니다.	
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주의 	전원 연결단자에 전원선을 확실히 고정 후 사용하세요. 접속이 불완전한 경우는 화재의 원인이 됩니다.		
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설치 관련

경고 	반드시 본 제품 구입 시 제공된 어댑터를 사용하세요. 화재, 감전, 고장의 원인이 됩니다.	천동, 번개가 치면 카메라에 문제가 생길 수 있습니다. 설치 시 접지 등 낙뢰에 의한 파손이 최소화될 수 있도록 주의하세요.	카메라와 마운트 구성품은 동일 모델의 제품으로 체결하여 설치해 주세요. 두 부품 체결전 반드시 제품 모델명을 확인해 주세요. 다른 모델의 구성품과 혼용시 제품 파손의 위험이 있습니다.
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주의 	카메라를 벽이나 천장 등에 설치 시 안전하고 확실하게 고정하세요. 낙하로 인한 부상의 원인이 됩니다.	카메라 위에 전도성 물질(드라이버, 동전, 쇠붙이 등) 및 물이 차있는 용기 등을 놓지 마세요. 화재, 감전, 낙하로 인한 상해의 원인이 됩니다.	하나의 어댑터에 여러대의 카메라를 연결해서 사용하지 마세요. 용량 초과 시 이상 발열 및 화재의 원인이 됩니다.
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참 고

습기 먼지나 그늘음 등이 많은 장소에 설치하지 마세요. 화재, 감전의 원인이 됩니다.	제품에 물건을 떨어뜨리거나 충격을 주지 마세요. 진동이 심한 곳이나 자석종류가 있는 곳으로부터 멀리해 주세요.	온도가 너무 높은 곳이나 낮은 곳, 습도가 높은 곳에 설치하지 마세요. 화재, 감전의 원인이 됩니다.
직사광선이 들어오는 곳이나 난방기구 등 열이 나는 곳을 피해주세요. 화재, 감전의 원인이 됩니다.	설치된 제품을 이동하고자 할 때에는 반드시 전원을 끄고 옮기거나 재설치 하세요. 화재, 감전의 원인이 됩니다.	바람이 잘 통하는 곳에 설치하세요. 화재 및 고장의 원인이 될 수 있습니다.

청소 관련

참 고 	청소 시 제품의 각 부분에 직접 물을 뿌리지 마세요. 화재, 감전의 원인이 됩니다.	제품 표면은 깨끗하고 부드러운 마른 헝겊으로 오염 부위를 닦거나 부드러운 마른 헝겊에 물을 적셔 물이 흐르지 않도록 꼭 짰 후에 오염 부분을 닦으세요. 알코올, 솔벤트가 함유되거나, 계면활성제가 함유된 세제, 화장품류, 기름 성분 등은 제품의 파손 및 변형을 유발할 수 있으니 사용하지 마세요.	
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개요	3	3 안전을 위한 주의사항 5 설치 및 사용상의 주의 5 특징 5 PC 시스템 권장 사양 6 Micro SD/SDHC/SDXC 메모리 카드 권장 사양 6 구성품 확인하기 7 각 부분의 명칭 및 기능 8 딥스위치 설정하기
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설치 및 사용상의 주의

- 사용자 임의로 카메라를 분해하지 마세요.
- 카메라 취급 시 항상 주의하세요.
- 카메라를 주먹으로 치거나 흔들지 않도록 하고 부주의한 보관이나 오동작으로 카메라에 손상을 입히지 않도록 주의하세요.
- 카메라를 비가 오는 장소나 습기가 많은 장소에 설치하지 않도록 주의하고 젖은 장소에 두고 동작하지 마세요.
- 제품 표면은 깨끗하고 부드러운 마른 헝겊으로 오염 부위를 닦거나 부드러운 마른 헝겊에 물을 적서 물이 흐르지 않도록 꼭 짰 후에 오염 부분을 닦으세요.
(알코올, 솔벤트가 함유되거나, 계면활성제가 함유된 세제, 화장품류, 기름 성분 등은 제품의 파손 및 변형을 유발할 수 있으니 사용하지 마세요.)
- 카메라를 직사광선이 비치지 않는 서늘한 곳에 설치하세요.
- 직사광선이 비치는 곳에 두면 제품에 좋지 않은 영향을 줄 수 있습니다.
- Micro SD 메모리 카드를 구부리거나 던지지 마세요.
- 온도가 높은 곳, 습기가 많은 곳, 먼지가 많은 곳에 Micro SD 메모리 카드를 보관하거나 사용하지 마세요.
- Micro SD 메모리 카드 단자에 이물질이 묻지 않도록 주의하세요.
이물질이 묻은 경우에는 부드러운 헝겊으로 닦아주세요.
- Micro SD 메모리 카드를 빼기 전 카메라 전원을 끄거나 <로컬 저장>에서 <Unmount>로 선택하고 <OK> 버튼을 눌러 설정 값을 적용하세요. (51쪽)
- Micro SD 메모리 카드의 수명이 다하면 데이터가 저장되지 않습니다.
이러한 경우에는 Micro SD 메모리 카드를 새로 구입하세요.
- 본 제품을 설치하기 전 또는 사용 중에 한화테크윈 웹 사이트 <http://www.hanwha-security.com/kr> 을 방문하셔서 최신 S/W 버전을 확인하시고 다운로드하여 업데이트하세요.
- 제품 CVBS 출력단자는 카메라 설치 편의성을 위한 단자이며 감시용으로 부적합합니다.
- 보안강화를 위하여 특수문자, 숫자, 영문 대문자, 소문자 중 다양한 조합으로 비밀번호를 설정하여 사용하시기를 권장합니다.



한화테크윈은 지구환경보전을 위하여 제품과 관련된 전 과정에서 환경을 고려하고 있으며, 고객에게 보다 친환경적인 제품을 제공하기 위하여 다양한 활동을 추진하고 있습니다.
에코(Eco)마크는 친 환경제품을 만들기 위한 한화테크윈의 의지이며, 유럽의 환경규제(RoHS)에 만족하는 제품임을 의미합니다.

특징

- 1/2" 2MP Sony CMOS sensor
- 1080p 60fps / 30fps, 720p 60fps
- HD-SDI, CVBS
- x30 Optical Zoom(6 ~ 180mm) & x32 Digital Zoom
- Day & Night(ICR)
- Real-time True WDR
- Digital Noise Reduction(2D+3D)
- Digital Image Stabilizer
- 255 Presets, 8 Tours, 8 Scans, 4 Patterns, 16 Areas, 8 Alarms
- 360° Endless Pan Rotation, -8°Tilt
- Twin motorized IR Zoom lens for IR intensity and distance adjustment
- IR Distance 250m
- Optically perfect flat viewing window preventing from blooming and smear
- -40°C~+60°C All weather High Tolerance
- Corrosion-resistant external PC housing
- Weather-proof IP66 outdoor housing
- Ease of installation and maintenance from PTZ docking cradle
- Memory Back Up Position of Pan/Tilt, Preset, ID and PTZ setting value
- Built-in Wiper System
- The Moisturizing structure with Goretex film

PC 시스템 권장 사양

- CPU : Intel Core 2 Duo 2.4 GHz 이상 (1920x1080 30 fps 사용시)
Intel Core i7 2.8 GHz 이상 (1920x1080 60 fps 사용시)
 - Web Plug-in이 SSE 4.1 Instruction Set에 최적화되어 있습니다.
- 해상도 : 1280X1024 이상 (32비트 컬러)
- 메모리 : 2GB 이상
- 지원 OS : Windows XP / VISTA / 7 / 8 / 8.1, MAC OS X 10.7 ~ 10.10
- 지원 웹브라우저 : Microsoft Internet Explorer (Ver. 8~11), Mozilla Firefox (Ver. 9~35), Google Chrome (Ver. 15~44), Apple Safari (Ver. 8.0.2(Mac OS X 10.10), 7.0.6(Mac OS X 10.9), 6.0.2 (Mac OS X 10.8, 10.7 only), 5.1.7) ※ Mac OS X only
 - Windows 8은 데스크탑 모드에서만 지원합니다.
 - 공식 사이트에서 릴리즈 된 버전이 아닌 베타 버전 혹은 개발자 버전은 지원하지 않습니다.
 - IPv6 접속은 Windows 7 이상을 권장합니다.
 - Safari Browser는 Mac OS X 에서만 지원합니다.
- 비디오 메모리 : 256MB 이상
 - ! ■ 비디오 카드의 드라이버가 올바르게 설치되지 않거나 최신 버전이 아닐 경우 영상이 정상적으로 재생되지 않을 수 있습니다.
 - 2개 이상 모니터를 사용하는 경우 시스템 사양에 따라 재생 성능이 떨어질 수 있습니다.

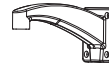
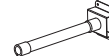
Micro SD/SDHC/SDXC 메모리 카드 권장 사양

- 권장 용량 : 4GB ~ 64GB
- 본 카메라는 다음과 같은 제조사의 메모리 카드 사용을 권장합니다.
Micro SD/SDHC/SDXC 메모리 카드 : Sandisk, Transcend
- 저장 프레임레이트가 30 fps 이하는 Class 6 규격 이상의 메모리 카드 사용을 권장합니다.
- 저장 프레임레이트가 31 fps 이상은 Class 10 UHS 규격 이상의 메모리 카드 사용을 권장합니다.

구성품 확인하기

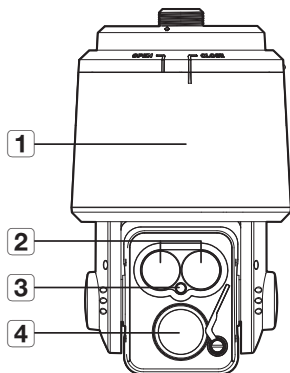
다음의 구성품이 모두 포함되어 있는지 확인하세요.
(제품 설치에 따라 액세서리의 종류가 다릅니다.)

외관	품명	수량	용도
	본체	1	
	설명서 및 설치 소프트웨어 CD	1	
	사용자 매뉴얼	1	
	테스트 모니터용 케이블	1	휴대용 디스플레이에 연결하여 카메라 테스트
	마운트	1	실외 설치를 위한 브라켓
	오디오&통신 케이블	1	외부 단자와 연결시 사용
	와이퍼	1	예비용 와이퍼
	스크류	2	벽부 브라켓 또는 천장 브라켓에 마운트 결합시 사용
	스크류	4	벽부 브라켓 고정용 스크류

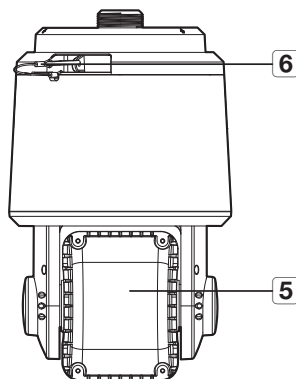
외관	품명	수량	용도
	마운트 볼트	2	본체와 마운트 결합시 사용
	마운트 조인트	1	벽부 브라켓 캡마운트 볼트 고정용
	전원 어댑터	1	전원 연결시 사용
	클램프 필터	2	제품의 외부에서 유입되는 전기적 노이즈 차폐용
	벽부 브라켓	1	카메라를 벽에 설치시 사용
	벽부 브라켓 고무판	1	벽부 브라켓에 부착하여 사용
옵션 (별도 구매품)			
	천장 브라켓		카메라를 천장에 설치시 사용
	천장 브라켓 파이프 소켓		천장 파이프에 고정시 사용
	밀봉 테이프		천장 브라켓 설치시 이음새 부분에 사용

각 부분의 명칭 및 기능

정면

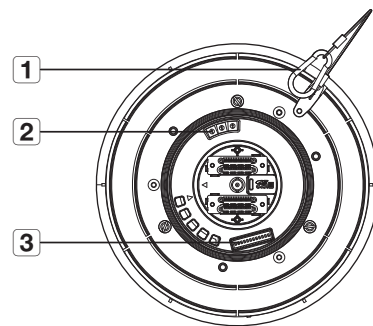


후면

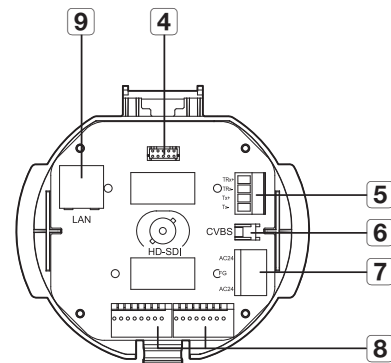


명칭	기능설명
1 본체	내부 PTZ 메커니즘을 직사광선과 빔물, 외부 충격으로부터 보호합니다.
2 IR LED	조도 센서에 의해 제어되는 적외선 LED입니다.
3 조도 센서	수신되는 빛을 감지하여 IR LED를 제어합니다.
4 렌즈	카메라 렌즈입니다.
5 실드 커버	렌즈 및 본체를 보호하기 위해 씌우는 뚜껑입니다.
6 안전고리	설치시 제품의 추락을 방지하는 고리입니다.

설치면



마운트 내부



명칭	기능설명
1 안전고리	설치시 제품의 추락을 방지하는 고리입니다.
2 ID 설정 스위치	카메라 ID 설정 스위치입니다.
3 통신 설정 스위치	통신방식 및 종단값을 설정합니다.
4 AUX 연결단자	AUX와 연결하는 단자입니다.
5 통신 연결 단자	RS-485/422 통신을 연결하는 단자입니다.
6 비디오 출력 단자	아날로그 비디오 신호 출력 단자입니다. (설치용)
7 전원 연결 단자	전원을 연결하는 단자입니다.
8 알람 입출력 단자	알람 입출력 케이블을 연결하는 단자입니다.
9 네트워크 연결부	LAN 케이블을 연결하는 단자입니다. (10/100Mbps 지원)

딥스위치 설정하기

프로토콜 및 ID 딥스위치 설정방법

카메라 상단 부위에 Top cover를 열면 설정용 딥스위치가 있습니다.

통신 및 ID 딥스위치를 이용하여 카메라 시스템의 여러가지 설정을 제어할 수 있습니다.

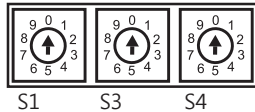
제품 설치 전에 반드시 제품환경에 맞추서 딥스위치를 설정하세요.

1. 각각의 환경에 맞게 스위치를 셋팅하시면 됩니다. 설정방법은 이어지는 표를 참고하세요.
2. 스위치가 완전히 On/Off 되지 않으면 제품이 오동작할 수 있으니 셋팅이 완료되면 다시 확인하세요.
3. 끝이 날카로운 도구를 이용하여 스위치 조작할 경우, 스위치가 파손될 수 있으니 주의하세요.
4. 무리한 힘으로 스위치를 조작할 경우 스위치가 파손될 수 있으므로 주의하세요.



어드레스 스위치

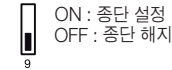
* ID 세팅은 1~255까지 가능



S1 : 1번째 번호 설정
S3 : 10번째 번호 설정
S4 : 100번째 번호 설정
예) S4 = 1
S3 = 2
S1 = 8일 경우 128번

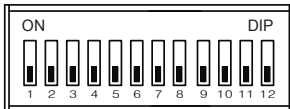
종단 설정

컨트롤러와 카메라 통신 신호의 감쇠를 방지하기 위해서는, 카메라/컨트롤러의 통신 루프에서 가장 먼 경로에 있는 카메라에 대하여 종단설정이 필요합니다.



■ 본 제품에 타사의 컨트롤러를 사용하여 제어하고자 하는 경우 당사의 서비스부서 또는 기술부서로 문의하세요.

Protocol, Baudrate, Camera 설정



1	2	3	PROTOCOL
OFF	OFF	OFF	PELCO-D
OFF	OFF	ON	PELCO-P
OFF	ON	OFF	WTX
OFF	ON	ON	EZP
ON	OFF	OFF	NC
ON	OFF	ON	NC
ON	ON	OFF	NC
ON	ON	ON	NC

4	5	6	BAUDRATE
OFF	OFF	OFF	2400
OFF	OFF	ON	4800
OFF	ON	OFF	9600
OFF	ON	ON	19200
ON	OFF	OFF	38400
ON	OFF	ON	57600
ON	ON	OFF	115200
ON	ON	ON	NC

7	RSMODE
OFF	RS-422
ON	RS-485

9	RS LOOP
OFF	OFF
ON	ON

11	IP SELECT
OFF	IP OFF
ON	IP ON

8	NTSC/PAL
OFF	NTSC
ON	PAL

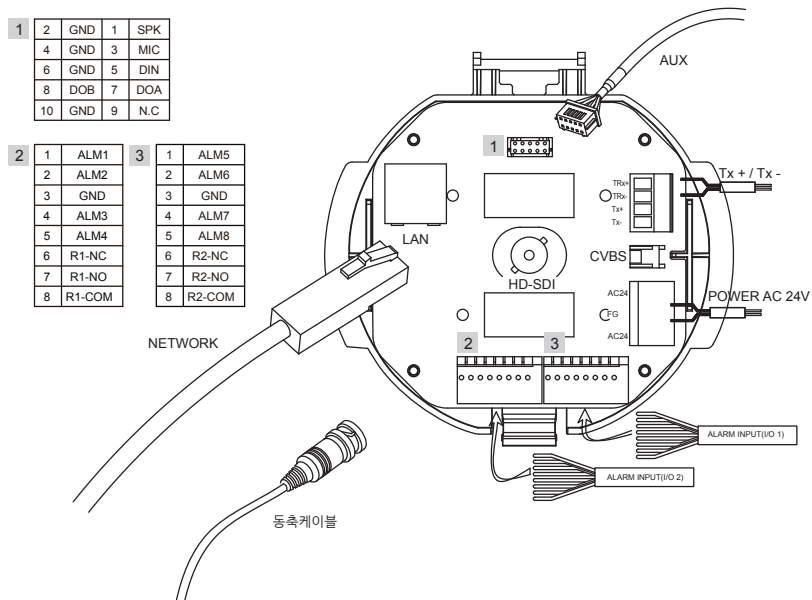
10	NC
OFF	NC
ON	NC

12	BOOT0
OFF	OFF
ON	PROGRAM MODE

다른 기기와 연결하기

카메라 배선부

제품의 배선은 아래의 그림을 참고하세요.



- 알람출력 및 AUX출력 단자의 최대용량은 30V DC/2A, 125V AC/0.5A, 250V AC/0.25A 입니다.
- 알람 입출력 케이블은 단자별로 반드시 하나씩 연결해주세요.
- 정격을 초과하는 제품을 연결하여 사용할 때에는 별도의 릴레이 구동 장치를 사용하세요.
- 전원과 GND를 알람 출력 포트에 잘못 연결할 경우 화재 및 제품 파손이 발생할 수 있습니다.

어댑터 및 케이블 준비하기

- 카메라와 전원 어댑터를 연결한 후 전원 어댑터의 플러그를 콘센트에 연결하세요.

정격 전압 및 전류를 정확히 확인하세요.

정격 전력	입력 전압 범위	전류 소비
AC 24V	AC 22V~26V	6 A

- 주위온도가 -50°C 이하의 환경에서는 사용할 수 없습니다.
- -50°C 환경에서 제품 설치 장소에 따라 해동되지 않을 수 있습니다.
- 항상 전원을 인가하여 제품 내부 온도가 -10°C 이상이 되도록 하세요.
- 저온 환경에 제품이 방치된 경우, 정상 동작하는데 최대 3시간이 소요됩니다.
- -40°C 이하 환경에서 IR 조광기의 켜 연동속도가 느려질 수 있습니다.
- -40°C 이하 환경에 제품 방치 후 전원을 켜 경우 시간을 재설정하세요.

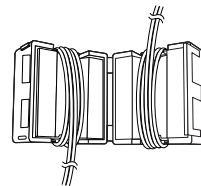
구리선의 저항치 [20°C] 일 때

구리선 사이즈(AWG)	#24(0.22mm ²)	#22(0.33mm ²)	#20(0.52mm ²)	#18(0.83mm ²)
저항치(Ω/m)	0.078	0.050	0.030	0.018
DROP 전압(V/m)	0.028	0.018	0.011	0.006
권장길이 (M)	20이내	30이내	30이내	30이내

- 위의 표와 같이 전선의 길이에 따라 전압 강하 현상이 생기므로 어댑터 출력선의 길이를 과도하게 길게하여 카메라와 연결할 경우 카메라의 성능에 문제가 생길 수 있습니다.
 - 카메라 작동 보증 전압 : AC 24V±10%
 - 위의 표에 나타난 전선의 종류 및 제조사에 따라 편차가 있을 수 있습니다.

클램프 필터 설치하기

1. 제공된 클램프 필터의 락킹을 여세요.
2. 케이블을 그림과 같이 한면당 각 2회씩 감으세요.



3. 락킹을 잠구세요.

- 전원 어댑터와 UTP 케이블의 클램프 필터 설치방법은 동일합니다.
- 제공된 클램프 필터를 사용해 인장 규격을 보증할 수 있습니다.
- UTP 케이블은 CAT.5E FTP 케이블 사용을 권장합니다.

설치 및 연결

이더넷 연결하기

이더넷 케이블을 연결하여 로컬 네트워크나 인터넷에 연결하세요.

RS-485/RS-422 연결하기

PTZ 카메라는 키보드 또는 DVR과 같은 외부 장치에 의해 RS-485/RS-422 방식의 통신 방법으로 원격 제어됩니다.

제어신호 연결도

- RS-485 통신

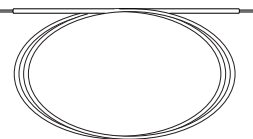


- RS-422 통신



통신용 케이블

카메라와 컨트롤러가 통신하기 위해서는 RS-485/422 통신선로가 필요합니다.



- 연결된 길이는 30M이내를 권장합니다.
- 통신용 케이블은 당사에서 제공하지 않습니다.

외부 비디오 입력단자와 연결하기

HD-SDI 출력을 모니터나 DVR 비디오 입력단자와 연결하세요.

설치용 모니터 연결하기

마운트 내부의 영상출력단자를 설치용 모니터 영상입력단자에 연결합니다.

- 사용되는 모니터와 주변기에 따라 접속 방법이 다르므로 각 기기의 사용 설명서를 참고하세요.
- 반드시 연결되는 기기의 전원을 끈 상태에서 연결하세요.

- 본 제품은 네트워크를 통해 영상을 전송하는 네트워크 카메라로서, 영상출력단자는 제품 설치 시 카메라의 활성화범위를 정하는데 사용되는 설치용 단자입니다.
- 모니터링 용으로 사용 시 화질 저하 등의 문제가 발생할 수 있습니다.
- TFT/LCD 휴대모니터 외 전문 CRT 등을 이용한 24시간 감시용에는 부적합합니다.
- 24시간 감시 및 저장은 네트워크를 통한 전송화면을 이용하세요.

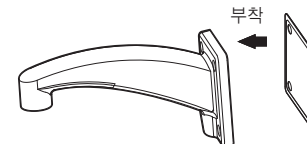
설치하기

카메라 브라켓 준비 및 설치하기

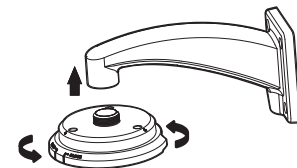
브라켓 및 하우징 설치 방법에 관한 사항은 각 브라켓, 하우징에 동봉된 설치매뉴얼을 참고하세요.

벽부 부착 방식으로 설치하기

- 제공된 벽부 브라켓 고무편을 그림과 같이 벽부 브라켓에 부착한 후 벽면에 설치하세요.

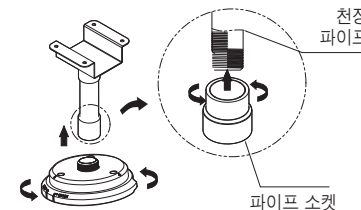


- 브라켓에 마운트를 시계방향으로 회전하면서 결합하세요.



< 벽부형 브라켓 >

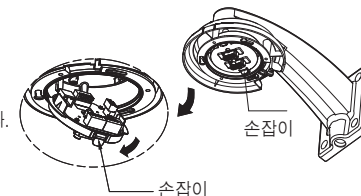
- 천장형 브라켓 설치시 소켓을 천장 파이프에 고정된 후 사용하세요.



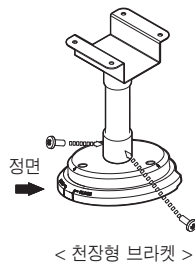
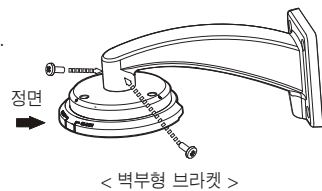
< 천장형 브라켓 >

- 그림과 같이 마운트의 하단부에 있는 힌지도어의 손잡이 부분을 가볍게 누르고 아래로 내려주세요. 9쪽의 “카메라 배선부”를 참고하여 배선을 연결하세요.

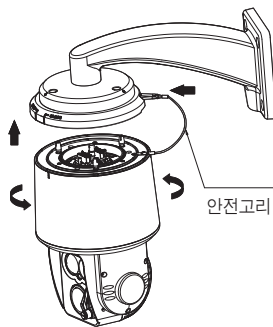
- 제품의 전원은 최종 단계에서 인가하세요. 설치 도중에 전원을 투입할 경우 제품의 파손 및 화재의 위험이 있습니다.



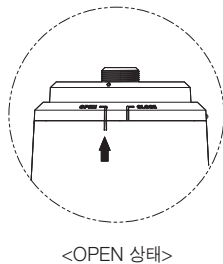
4. 배선 연결 완료 후 방향에 맞춰 마운트를 회전시키세요.
5. 제공된 스크류 (M4*8) 2개를 이용하여 마운트를 단단히 고정하세요.



6. 카메라 본체의 안전고리를 마운트 후면 안전고리에 걸어 장착하세요.

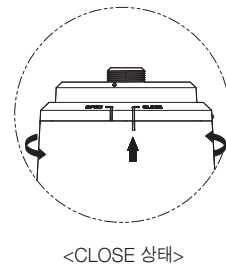


7. 카메라와 마운트 결합
마운트와 카메라 본체의 방향 참고 표시가 들어맞도록 결합하세요.



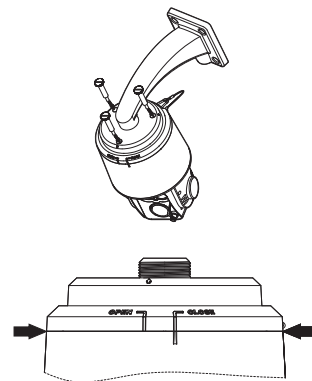
8. 카메라 장착
카메라 본체를 시계반대방향으로 끝까지 돌려서 카메라를 장착하세요.

! ■ 본체와 마운트 결합 전 커넥터 방향을 확인하세요.



9. 카메라와 마운트 고정
제공된 마운트 스크류 3개를 이용하여 마운트와 본체를 단단히 고정하세요.

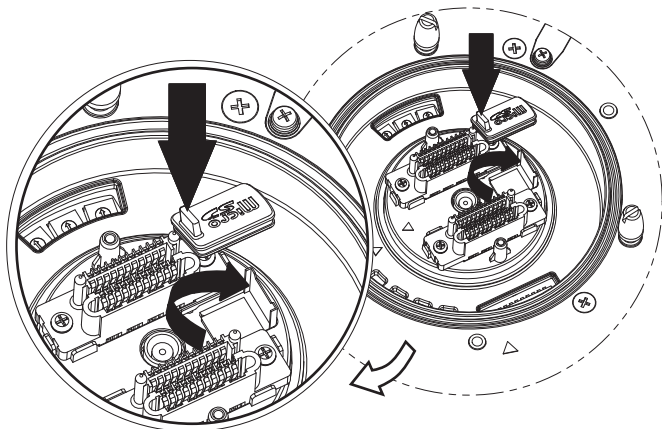
! ■ 결합부분은 틈이 없도록 볼트를 단단히 고정하세요. 조립이 제대로 되지 않은 경우 카메라에 물이 유입될 수 있습니다.



Micro SD 메모리 카드 넣기/빼기

- ! ■ 카메라를 설치하기 전에 전원과 본체를 분리한 후 Micro SD 메모리 카드를 넣으세요.
- 역방향으로 무리하게 삽입하지 마세요. Micro SD 메모리 카드가 파손될 수 있습니다.
- 비가 오거나 습도가 높은 날씨에는 Micro SD 카드 탈착을 권장하지 않습니다.
- 제품 외관 커버의 분해는 5분 이내에 완료해주세요. 그렇지 않으면 내부 결로의 원인이 될 수 있습니다.

1. 카메라 본체의 설치면에 있는 보호캡의 손잡이를 잡고 분리하세요.
2. 카드 슬롯 커버를 위로 들어 올리세요.
3. Micro SD 카드를 장착/분리하세요.



- ! ■ Micro SD 메모리 카드를 뺄 때 세게 눌렀다가 놓을 경우 Micro SD 메모리 카드가 갑자기 튀어 나올 수 있으므로 주의하세요.
- Micro SD 메모리 카드를 빼기 전 카메라 전원을 끄거나 <로컬 저장>에서 <Unmount>로 선택하고 <OK> 버튼을 눌러 설정 값을 적용하세요. (51쪽)
- Micro SD 메모리 카드에 데이터를 저장하고 있을 때 Micro SD 메모리 카드를 빼거나, 전원을 끄면 Micro SD 카드에 저장된 데이터가 손상될 수 있습니다.

메모리 카드 정보 (별매품)

메모리 카드란

메모리 카드란 각종 디지털 제품의 데이터(영상, 음성, 문자 등) 기록 및 상호 교환을 위해 개발된 새로운 개념의 외장형 카드입니다.

적합한 메모리 카드 선택하기

본 카메라는 Micro SD/SDHC/SDXC 메모리 카드를 사용할 수 있습니다. 단, 카드 제조사별/종류별 호환성은 차이가 날 수 있습니다.

본 카메라는 다음과 같은 제조사의 메모리 카드 사용을 권장합니다.

Micro SD/SDHC/SDXC 메모리 카드 : Sandisk, Transcend

본 카메라는 4GB ~ 64GB 용량의 메모리 카드 사용을 권장합니다.

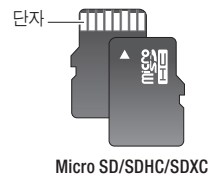
재생 시에는 메모리 카드의 읽기/쓰기 성능에 따라 느려질 수 있습니다.

따라서, 읽기/쓰기 속도가 빠른 메모리 카드를 사용하세요.

저장 프레임레이트가 30 fps 이하의 경우 Class 6 규격 이상의 메모리 카드 사용을 권장합니다.

저장 프레임레이트가 31 fps 이상의 경우 Class 10 UHS 규격 이상의 메모리 카드 사용을 권장합니다.

메모리 카드 각부의 이름



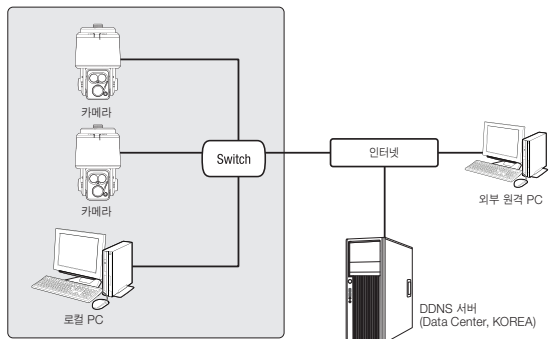
네트워크 연결 및 설정

사용자의 네트워크 연결 구성에 따라 카메라의 네트워크 환경을 설정할 수 있습니다.

LAN 환경에서 직접 카메라 설치하기

LAN 환경에 있는 로컬 PC에서 카메라 접속하기

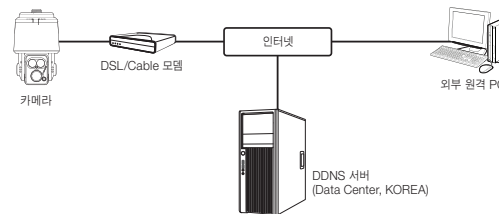
1. 로컬 PC의 인터넷 브라우저를 실행하세요.
2. 브라우저의 주소창에 접속하려는 카메라의 IP 주소를 입력하세요.



<로컬 네트워크>

- LAN 환경의 외부 인터넷에 있는 원격 PC에서 LAN 환경 안에 설치되어 있는 카메라에 접속할 경우 포트 포워딩이 되어 있지 않거나 방화벽이 설치되어 있으면 접속이 되지 않을 수 있습니다. 이때는 네트워크 관리자에게 문의하세요.
- IP 인스톨러에서 관리자 ID "admin", 비밀번호 "4321"로 IP Address, Subnet Mask, Gateway, Network type이 설정 가능합니다. 네트워크 인터페이스 변경 후 해킹 방지 및 보안강화를 위하여 웹뷰어에 접속하여 Default로 설정된 비밀번호를 반드시 변경하세요.
- 제품 출하 시 IP 주소는 192.168.1.2로 설정됩니다. IP 주소를 변경하려면, IP 인스톨러를 이용하세요. IP 인스톨러 사용방법은 "Static IP 설정하기"를 참고하세요. (15쪽)

DHCP 방식의 DSL/Cable 모뎀에 직접 카메라 설치하기

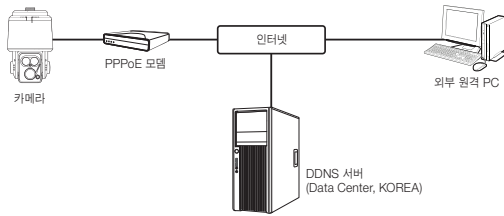


1. 사용자 컴퓨터와 네트워크 카메라를 직접 연결하세요.
2. IP 인스톨러를 사용하여 해당 카메라의 IP 주소를 사용자 컴퓨터에서 인터넷 브라우저를 통하여 접속할 수 있는 IP 주소로 변경하세요.
3. 인터넷 브라우저를 이용하여 웹뷰어에 접속하세요.
4. [Setting] 페이지로 이동하세요.
5. [네트워크 서비스] - [DDNS] 설정 페이지로 이동하여, DDNS를 설정하세요.
6. [네트워크] 설정 페이지로 이동하여 IP 형식을 [Dynamic IP]로 설정하세요.
7. 카메라를 사용자 컴퓨터에서 분리하여, 모뎀에 직접 연결하세요.
8. 카메라를 재부팅하세요.

- DDNS 설정 방법은 "DDNS"를 참고하세요. (53쪽)
- IP 형식의 설정 방법은 "네트워크"를 참고하세요. (22쪽)

네트워크 연결 및 설정

PPPoE 모뎀을 직접 카메라 설치하기

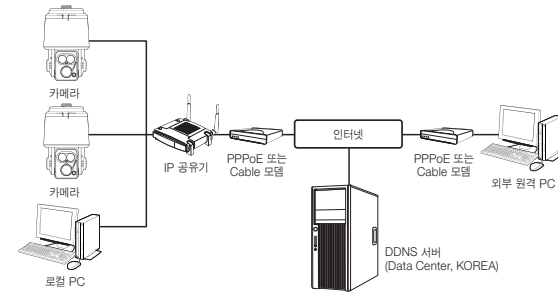


1. 사용자 컴퓨터와 네트워크 카메라를 직접 연결하세요.
2. IP 인스톨러를 사용하여 해당 카메라의 IP 주소를 사용자 컴퓨터에서 인터넷 브라우저를 통하여 접속할 수 있는 IP 주소로 변경하세요.
3. 인터넷 브라우저를 이용하여 웹뷰어에 접속하세요.
4. [Setting] 페이지로 이동하세요.
5. [네트워크 서비스] - [DDNS] 설정 페이지로 이동하여, DDNS를 설정하세요.
6. IP 형식을 [PPPoE]로 설정한 후 네트워크 서비스의 ID와 암호를 입력하세요.
7. 카메라를 사용자 컴퓨터에서 분리하여, 모뎀에 직접 연결하세요.
8. 카메라를 재부팅하세요.

- DDNS 설정 방법은 “DDNS”를 참고하세요. (53쪽)
- IP 형식의 설정 방법은 “네트워크”를 참고하세요. (22쪽)

PPPoE/Cable 모뎀을 연결한 IP 공유기에 카메라 설치하기

일반 가정집, 소규모 사무실, 상점 등 간단한 네트워크 환경에서 사용 가능한 구성입니다.



IP 공유기에 연결된 로컬 PC의 네트워크 설정하기

IP 공유기에 설치된 로컬 PC의 네트워크 설정을 다음과 같이 맞춰 주세요.

- 로컬 PC의 <네트워크> → <속성> → <로컬 영역 연결> → <일반> → <속성> → <인터넷 프로토콜(TCP/IP) 선택> → <속성> → <자동으로 IP 주소 받기> 또는 <다음 IP 주소 사용>을 선택하세요.
- <다음 IP 주소 사용> 선택 시 다음과 같이 설정하세요.

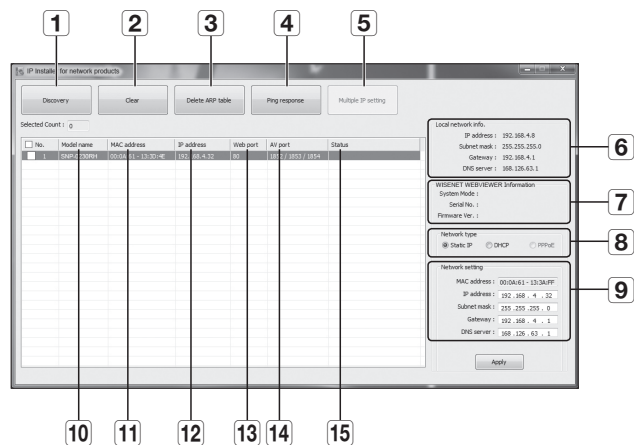
예1) IP 공유기의 접속주소 (LAN IP)가 192.168.1.1 인 경우
IP 주소 : 192.168.1.100
서브넷 마스크 : 255.255.255.0
기본 게이트웨이 : 192.168.1.1

예2) IP 공유기의 접속주소 (LAN IP)가 192.168.0.1 인 경우
IP 주소 : 192.168.0.100
서브넷 마스크 : 255.255.255.0
기본 게이트웨이 : 192.168.0.1

예3) IP 공유기의 접속주소 (LAN IP)가 192.168.xxx.1 인 경우
IP 주소 : 192.168.xxx.100
서브넷 마스크 : 255.255.255.0
기본 게이트웨이 : 192.168.xxx.1

- IP 공유기의 접속주소는 각 IP 공유기의 사용설명서를 참고하세요.
- IP 공유기의 포트 포워딩 설정 방법은 “포트 포워딩 (포트 맵핑) 설정하기”를 참고하세요. (17쪽)

IP 인스톨러의 명칭 및 기능



명칭	기능
1 Discovery	현재 네트워크 상에 연결된 네트워크 카메라를 검색합니다.
2 Clear	검색된 카메라 목록을 지웁니다.
3 Delete ARP table	ARP table을 삭제합니다.
4 Ping response	네트워크 반응을 확인합니다.
5 Multiple IP setting	네트워크 설정을 사용자가 직접 입력합니다.
6 Local network info.	내부 네트워크 정보를 표시합니다.
7 WISNET WEBVIEWER Information	검색된 카메라의 시리얼 번호 및 펌웨어 버전 등을 나타냅니다.
8 Network type	<Static>, <Dynamic>, <PPPoE> 중 현재 연결된 네트워크의 상태를 나타냅니다.
9 Network setting	검색된 카메라의 IP 정보를 표시합니다.
10 Model Name	연결된 카메라의 모델명입니다. 컬럼을 누르면 모델명 기준으로 정렬합니다.

명칭	기능
11 Mac address	연결된 카메라의 이더넷 주소입니다. 컬럼을 누르면 이더넷 주소 기준으로 정렬합니다.
12 IP address	IP 주소입니다. 컬럼을 누르면 IP 주소 기준으로 정렬합니다.
13 Web port	검색된 카메라의 웹 포트를 표시합니다.
14 AV port	검색된 카메라의 AV 포트를 표시합니다.
15 Status	검색된 카메라의 IP 주소 변경 상태를 표시합니다.

■ IP 인스톨러는 동봉된 CD에 포함되어 있는 버전을 사용하세요.

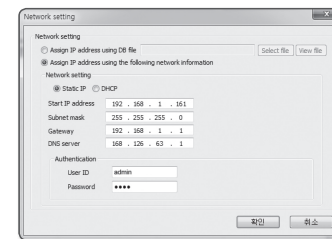
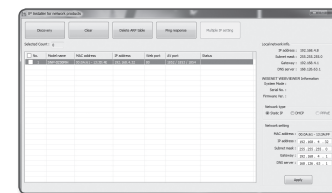
Static IP 설정하기

수동으로 네트워크 설정하기

<IP Installer for network products> 프로그램을 실행하여 카메라 검색 목록이 나타나게 하세요.

1. 검색목록에서 원하는 카메라를 선택하세요.
카메라에 부착된 스티커에 명시된 MAC ADDRESS를 확인하세요.
2. [Multiple IP setting] 버튼을 클릭하세요.
수동 설정 창이 나타납니다.
카메라의 <IP address>, <Subnet mask>, <Gateway>가
기존에 설정되어 있는 값으로 표시됩니다.

■ DHCP가 선택되지 않은 상태에서, IP 관련 항목의 설정이 가능합니다.



네트워크 연결 및 설정

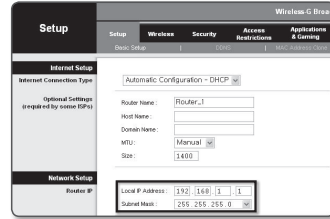
IP 공유기를 사용하지 않는 경우

네트워크 관리자에게 <IP Address>, <Subnet Mask>, <Gateway> 설정값을 문의하세요.

IP 공유기를 사용하는 경우

- IP Address : IP 공유기가 제공하는 사실 IP 범위에 맞게 설정하세요.
예) 192.168.1.2~254, 192.168.0.2~254, 192.168.XXX.2~254
- Subnet Mask : IP 공유기의 <Subnet Mask>가 카메라의 <Subnet Mask> 값이 됩니다.
- Gateway : IP 공유기의 <Local IP Address>가 카메라의 <Gateway> 값이 됩니다.

- 연결된 IP 공유기 모델에 따라 설정 방법이 다를 수 있습니다.
해당 공유기의 사용설명서를 참고하세요.
- IP 공유기의 포트 포워딩 설정 방법은 “**포트 포워딩 (포트 맵핑) 설정하기**”를 참고하세요. (17쪽)



IP 공유기에 카메라가 2대 이상 연결되어 있는 경우

카메라의 IP 관련 항목, Port 관련 항목을 각각 다르게 설정해 주세요.

예)

구분		1번 카메라	2번 카메라
IP 관련 항목	IP Address	192.168.1.100	192.168.1.101
	Subnet Mask	255.255.255.0	255.255.255.0
	Gateway	192.168.1.1	192.168.1.1
Port 관련 항목	HTTP Port	8080	8081
	VNP Port	4520	4521

- <HTTP Port>가 80 이외의 번호로 설정되어 있는 경우 인터넷 브라우저의 주소 입력란에 <Port> 번호도 함께 입력을 해야 카메라에 접속이 가능합니다.
예) http://IP주소 : HTTP Port
http://192.168.1.100:8080

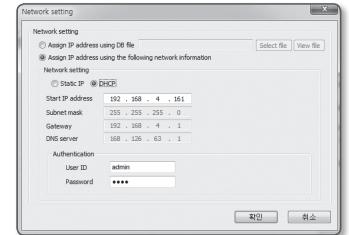
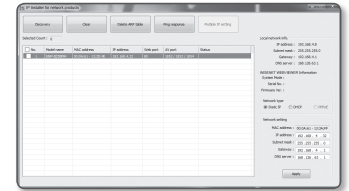
Dynamic IP 설정하기

Dynamic IP 환경 설정하기

- Dynamic IP 사용 환경 예
 - IP 공유기에 카메라를 설치한 경우, DHCP를 이용하여 IP를 할당 받는 경우
 - DHCP 방식을 사용하는 모뎀에 카메라를 직접 설치한 경우
 - LAN 환경에서 내부 DHCP 서버로부터 IP를 할당 받는 경우

Dynamic IP 확인하기

1. 사용자의 로컬 PC에서 IP 인스톨러를 실행하세요.
2. 검색된 카메라를 선택하세요.
3. [Multiple IP setting] 버튼을 클릭하여 현재 카메라에 설정된 <Dynamic IP>를 확인하세요.
<DHCP>를 해제하면 <Static>으로 IP를 변경할 수 있습니다.



포트 포워딩 (포트 맵핑) 설정하기

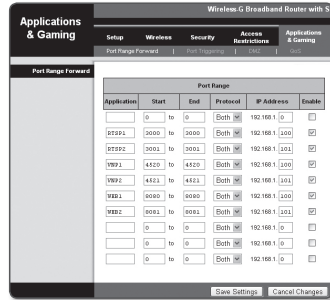
IP 공유기에 카메라가 설치된 경우, IP 공유기 외부 원격 PC에서 IP 공유기 내부의 카메라에 접속하기 위해서는 IP 공유기에 포트 포워딩을 설정해 주어야 합니다.

수동으로 포트 포워딩 설정하기

1. IP 공유기의 설정 메뉴에서 <Applications & Gaming> - <Port Range Forward>를 클릭하세요.
타사 IP 공유기의 포트 포워딩 메뉴 위치 및 설정 방법은 각 IP 공유기의 사용설명서를 참고하세요.
2. IP 공유기에 연결되어 있는 각 카메라에 대해 <TCP>와 <UDP Port>를 선택하세요.
IP 공유기에 설정할 각 포트 번호는 카메라 웹뷰어의 <Setting> - <네트워크 서비스> - <포트>에서 지정한 포트 번호에 맞게 설정해야 합니다.
3. 설정이 완료되면 [Save Settings] 버튼을 클릭하세요.
설정이 저장됩니다.



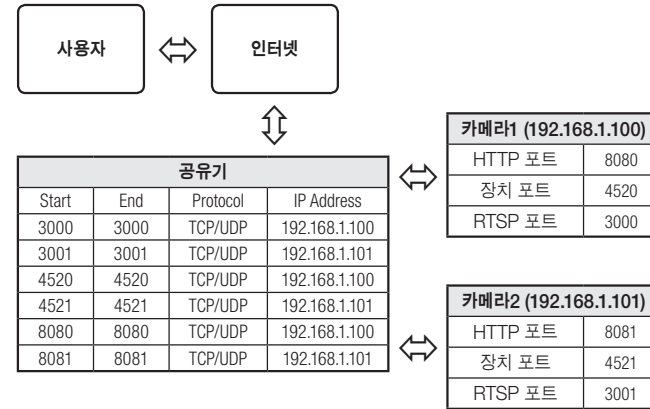
- 위 설명은 CISCO IP 공유기로 설정한 예시입니다.
- 연결된 IP 공유기 모델에 따라 설정 방법이 다를 수 있습니다.
해당 공유기의 사용설명서를 참고하세요.



여러대의 카메라를 포트 포워딩 설정하기

- 공유기의 포트 포워딩 설정은 공유기의 설정 페이지를 통해서 변경할 수 있습니다.
- 각 포트는 사용자가 카메라의 설정 페이지에서 변경할 수 있습니다.

예) 공유기에 카메라1과 카메라2가 연결되어 있는 경우 :



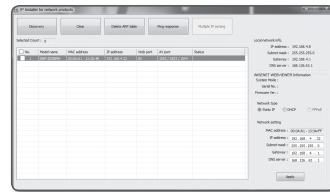
- UPnP(Universal Plug and Play) 기능을 지원하는 공유기를 사용하면 공유기 설정 없이 포트 포워딩을 할 수 있습니다.

네트워크 연결 및 설정

공유된 로컬 PC에서 카메라 접속하기

1. IP 인스톨러를 실행하세요.
연결된 카메라를 검색하여 리스트에 표시합니다.
2. 연결할 카메라를 더블 클릭하세요.
인터넷 브라우저가 시작되면서 카메라에 접속합니다.

■ 사용자가 직접 인터넷 브라우저를 실행시켜, 주소 창에 검색된 카메라의 IP 주소를 입력하여 접속할 수도 있습니다.



외부의 원격 PC에서 인터넷으로 카메라에 접속하기

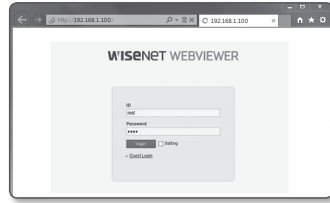
IP 공유기 외부의 원격 PC에서는 IP 인스톨러를 사용할 수 없으므로, 사용자는 카메라의 DDNS URL을 이용하여 IP 공유기 내부의 카메라에 접속할 수 있습니다.

1. IP 공유기 내부에 설치되어 있는 카메라를 외부에서 접속하기 위해서는 반드시 IP 공유기에 포트 포워딩 설정을 하세요.
2. 외부 원격 PC에서 인터넷 브라우저를 실행하여 주소창에 카메라에 접속하기 위한 DDNS URL 주소, 또는 IP 공유기의 인터넷 IP 주소를 입력하세요.

카메라에 접속하기

일반적인 방법인 경우

1. 인터넷 브라우저를 실행하세요.
2. 주소 입력란에 카메라의 IP 주소를 입력 하세요.
예) • IP 주소 (IPv4) : 192.168.1.100인 경우 → http://192.168.1.100
- 로그인 창이 나타납니다.
• IP 주소 (IPv6) : 2001:230:abcd:ffff:0000:0000:ffff:1111인 경우
→ http://[2001:230:abcd:ffff:0000:0000:ffff:1111]
- 로그인 창이 나타납니다.



Web Port가 80이 아닌 경우

1. 인터넷 브라우저를 실행하세요.
2. 주소 입력란에 카메라의 IP 주소와 Web 포트번호를 입력하세요.
예) IP 주소 : 192.168.1.100:Web 포트번호(8080)인 경우
→ http://192.168.1.100:8080 - 로그인 창이 나타납니다.

URL로 접속하기

1. 인터넷 브라우저를 실행하세요.
2. 주소 입력란에 카메라의 DDNS URL을 입력하세요.

! Local 망으로만 구성된 환경에서는 접속할 수 없습니다.

UPnP를 이용하여 접속하기

1. UPnP 프로토콜을 지원하는 클라이언트나 운영체제를 실행하세요.
2. 검색되는 카메라의 이름을 클릭하세요.
Windows 운영체제 컴퓨터에서는 네트워크 메뉴에 검색되는 카메라 이름을 클릭하세요.
- 로그인 창이 나타납니다.

Bonjour를 이용하여 접속하기

1. Bonjour 프로토콜을 지원하는 클라이언트나 운영체제를 실행하세요.
2. 검색되는 카메라의 이름을 클릭하세요.
Mac 운영체제 컴퓨터에서는 Safari의 Bonjour 탭에 검색되는 카메라의 이름을 클릭하세요.
- 로그인 창이 나타납니다.

로그인하기

카메라에 접속할때마다 로그인 창이 뜹니다.
ID와 비밀번호를 입력해야 관리자 권한으로 카메라에 접속할 수 있습니다.

1. <ID> 입력란에 “admin”을 입력하세요.
관리자의 아이디 “admin”은 고정이며 변경할 수 없습니다.
2. <Password> 입력란에 설정한 암호를 입력하세요.
초기 비밀번호는 “4321”이며 웹 설정 페이지에서 변경 가능합니다.
3. [Login] 버튼을 클릭하세요.
로그인이 완료되면 카메라 웹뷰어 화면이 나타납니다.

! 카메라 웹뷰어 접속시 영상정보가 암호화 되어있지 않으니 보안에 각별히 주의하시길 바랍니다.

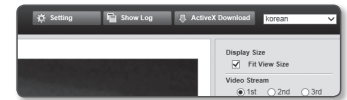
- ✎ <Setting>을 클릭하면 웹 설정 페이지로 이동합니다.
- ✎ <Guest Login>을 클릭하면 ID와 비밀번호를 입력없이 Guest 계정으로 웹 모니터링 페이지에 접속할 수 있습니다.
- ✎ Guest 계정으로 접속한 경우 영상 모니터링 및 일부 기능만 사용할 수 있으며, 웹 설정 페이지는 접속할 수 없습니다.



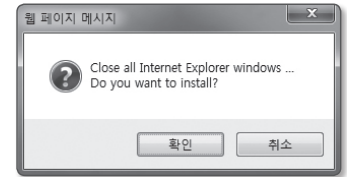
ActiveX 설치하기

카메라에 ActiveX를 설치해야 정상적으로 카메라에 영상을 실시간으로 확인 및 제어할 수 있습니다.

1. 웹 모니터링 페이지에 들어가면 우측 상단에 [ActiveX Download]를 클릭하세요.



2. 모든 브라우저 창이 닫힌다는 알림창이 나타나면 [확인] 버튼을 클릭하세요.



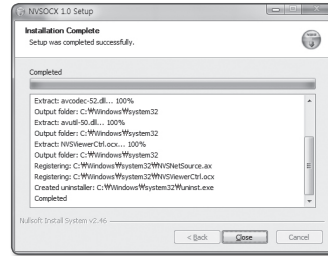
3. 메시지 창에서 [실행(R)]을 클릭하세요.



4. [Install] 버튼을 클릭하여 설치를 시작하세요.



5. [Close] 버튼을 클릭하세요.
ActiveX 설치가 완료됩니다.



웹 모니터링 사용하기



명칭	기능
1 Setting	웹 설정 페이지로 이동합니다.
2 Show Log	웹 서버 동작 중 발생하는 Log를 하단 분할 창에 보여 줍니다.
3 ActiveX Download	웹뷰어 재생에 필요한 ActiveX 를 다운로드합니다.
4 언어	[Setting] 페이지에서 사용할 언어를 선택할 수 있습니다.
5 Display Size	<Fit View Size> 체크 박스를 해제하면 영상 크기를 조절하는 조정 바가 나타납니다. 바를 이용하여 모니터링 영상을 축소하거나 확대합니다.
6 Video & Stream	여러 개의 스트림 중 하나를 선택하여 모니터링할 수 있습니다. [Setting] - [비디오 프로파일] 탭에서 해당 스트림이 활성화된 경우에 모니터링이 가능합니다.
7 PTZ 패널	카메라의 줌/초점 동작 제어 및 프리셋으로 이동합니다. ■ 사용 전 제품의 기능 지원 여부나 설치된 기기의 연결 상태를 확인합니다.
8 Tour	저장된 투어를 실행합니다 .
9 Wiper	카메라의 유리창에 묻어있는 물기나 먼지를 닦아냅니다.
10 ICR / IR LED	IR LED를 On/Off 할 수 있습니다.
11 Relay Out	WISENET WEBVIEWER에 연결된 외부기기를 제어합니다. ■ 사용 전 제품의 기능 지원 여부나 설치된 기기의 연결 상태를 확인합니다.

명칭	기능
12 Digital Input	네트워크 전용 알람 입력입니다.
13 Audio On/Off	Audio IN 커넥터에 연결된 마이크에 입력되는 오디오 신호를 모니터링합니다. ■ 사용 전 제품의 기능 지원 여부나 설치된 기기의 연결 상태를 확인합니다.
14 Snapshot	모니터링 영상의 정지 이미지를 JPEG 형식으로 저장합니다.
15 Record Start	모니터링 영상을 동영상 파일로 저장합니다.
16 Full Screen	모니터링 영상을 모니터 전체 화면에 맞게 표시합니다.
17 Info	/30/cam1/720x480 모니터링 영상 상단에 영상 정보와 이벤트 정보를 표시합니다. 1) 영상 정보: 프레임 수(FPS, frame/sec) / 채널(카메라) 이름 / 해상도 2) 이벤트 정보: 움직임 감지 (적색) / 센서 입력 (청색) / 비디오 신호 (녹색) 3) 움직임 감지 기능 사용 시 웹 설정 페이지 / Motion Detect 항목의 Enable 체크박스에 체크가 되어 있어야 합니다.
18 About	ActiveX 정보를 보여줍니다.

영상을 캡처하려면

1. 캡처할 장면에서 [Snapshot ()] 버튼을 클릭하세요.
2. Internet explorer 에서는 C: 경로에 캡처 파일이 저장됩니다.

수동 녹화를 하려면

1. [Record Start ()] 버튼을 클릭하세요.
2. 수동 녹화를 종료하려면 [Record Stop ()] 버튼을 클릭하세요.

 ■ 수동 녹화 실행시 영상 테두리에 붉은색 외곽선으로 표시됩니다.

전체 화면으로 전환하려면

1. [Full Screen ()] 버튼을 클릭하세요.
2. 뷰어 화면이 전체 화면으로 변경 됩니다.
3. 전체 화면 모드를 종료하려면 키보드의 [Esc] 키를 누르거나 마우스로 다시 한번 클릭하세요.

PTZ를 제어하려면

1. PTZ 패널 방향키를 상하(Tilt)/좌우(Pan)로 클릭하여 카메라 방향을 조정하세요.
2. F(초점)/Z(배율) +/- 버튼을 클릭하여 카메라의 초점(Focus)과 줌(Zoom) 배율을 조정하세요.
3. Zoom/Focus Speed 바를 드래그하여 줌/초점 조정 속도를 설정하세요.
4. Pan/Tilt Speed 바를 드래그하여 좌우/상하 조정 속도를 설정하세요.
5. <Move> 버튼을 클릭하면 지정된 숫자에 저장된 프리셋 위치(PTZ 좌표값)로 이동합니다.



설정 화면

설정하기

네트워크 상에서 카메라의 기본 정보, 비디오 & 오디오, 네트워크, 이벤트, 시스템 설정을 실행할 수 있습니다.

1. 라이브 화면에서 [Setting ( Setting)]] 버튼을 클릭하세요.
2. 설정 화면이 나타납니다.
3. 설정 화면에서 [Live ( Live)]] 버튼을 클릭하면 모니터링 화면으로 이동합니다.

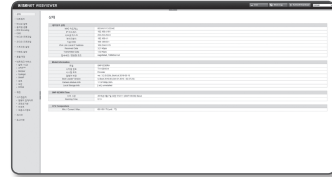
-  ■ 설정 페이지 중 프리뷰 영상이 재생되는 페이지는 PC에 ActiveX가 설치되어 있어야 정상 작동합니다.
만약 설치되어 있지 않을 경우, ActiveX를 설치하세요.

상태 확인하기

상태

카메라 네트워크 상태 및 모델 정보 및 시간 등을 표시합니다.

1. 설정 메뉴에서 <상태> 탭을 선택하세요.
2. <네트워크 상태>를 확인하세요.
현재 설정된 네트워크 정보를 표시합니다.
 - MAC 어드레스 : 네트워크 기기의 고유 주소
 - IP 어드레스 : 설정된 IP 주소 (초기 값: 192.168.1.2)
 - 서브넷 마스크 : 서브넷 마스크, 서브 네트워크 범위를 위한 설정값 (초기 값: 255.255.255.0)
 - 게이트웨이 : 게이트웨이, 서브 네트워크의 관문 역할을 하는 네트워크 장비의 IP 주소 (초기 값: 192.168.1.1)
 - 기본 DNS : DNS 서버의 IP 주소 (초기 값: 168.126.63.1)
 - IPv4 Link Local IP Address : ARP 테이블 내에서 유일한 IP 주소를 자동으로 생성 (169.254.xxx.xxx)
 - Received Data : 수신 데이터 속도
 - Transmitted Data : 송신 데이터 속도
 - 접속속도 / 양방향 모드 : 연결된 네트워크 장비와의 연결 상태 표시
3. <Model Information>을 확인하세요. 제품 정보를 표시합니다.
 - 모델 : 제품 모델명
 - 시리얼 번호 : 제품 일련번호
 - 시스템 모드 : 시스템 작동 방식 (디코더 제품인 경우: Decoder로 표시)
 - 펌웨어 버전 : 펌웨어 버전
 - Boot Loader Version : 부트 로더 버전
 - Camera Module Info : 카메라 모듈의 버전 / 해상도 / 카메라 모듈 제원
 - Local Storage Info : SD(SDHC) Card 정보 (마운트 상태 / 타입 / 포맷형식 / 용량)
4. <제품 Time>을 확인하세요.
제품 시간 정보를 표시합니다.
 - 서버 시간 : 제품 시간 정보
 - Running Time : 부팅 후 경과 시간
5. <CPU Temperature>를 확인하세요.
CPU 동작 온도를 표시합니다.
 - Min. / Current / Max. (unit : °C) : CPU의 최소 / 현재 / 최대 온도 값

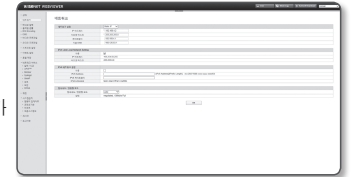


네트워크 설정하기

네트워크

카메라 IP 주소 및 네트워크 기본 정보를 설정할 수 있습니다.

1. 설정 메뉴에서 <네트워크> 탭을 선택하세요.
2. 네트워크를 설정하세요.
정적 IP 주소를 사용할 경우 <Static IP>를 선택하고 동적 IP 주소를 사용할 경우 <Dynamic IP>를 선택하세요.
동적 IP 주소를 사용하려면 DHCP를 지원하는 라우터나 공유기가 로컬 네트워크 상에 있어야 합니다.
 - IP 어드레스 / 서브넷 마스크 / 게이트웨이 / 기본 DNS : 연결된 네트워크 환경에 맞도록 설정합니다. (네트워크 관리자에게 적절한 설정 값을 문의하고 설정합니다.)
3. <IPv4 Link Local Network Setting>을 설정하세요.
IPv4 Link Local Network 설정을 지원하는 NVR과 함께 설치되는 경우 해당 WISENET WEBVIEWER의 IP 주소 설정을 할 필요가 없도록 해줍니다.
 - 사용 : 활성화하려면 체크합니다. (기본값: 사용)
 - IP 어드레스, 서브넷 마스크 : 자동으로 설정됩니다.
4. <IPv6 네트워크 설정>을 설정하세요.
 - 사용 : 활성화하려면 체크합니다. (기본값: 미사용)
 - IPv6 Address/게이트웨이 : 사용자가 임의로 설정한 IPv6 주소와 게이트웨이를 입력하고 사용합니다.
 - IPv6 LinkLocal : 기본으로 설정되어 있는 IPv6 링크로컬을 사용합니다.
5. <접속속도 / 양방향 모드>를 설정하세요.
 - 접속속도 / 양방향 모드 : 다른 네트워크 장비와의 연결에 있어 자동 모드에 문제가 있는 경우 사용합니다. 지정한 속도로 연결하도록 합니다. 지정한 값은 연결된 네트워크 장비와 같아야 합니다.
 - 상태 : 현재 네트워크 접속 상태를 표시합니다.
6. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.

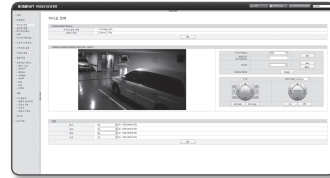


비디오 설정하기

비디오 입력

카메라 입력 영상을 설정할 수 있습니다.

1. 설정 메뉴에서 <비디오 입력> 탭을 선택하세요.
2. <Camera Input Source>를 설정하세요.
 - 비디오 입력 상태 : 현재 HD-SDI 카메라의 출력 신호를 표시합니다.
 - Mirror / Flip : 카메라에 포착되는 영상의 좌우/상하를 반전시킵니다.
3. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



4. <Camera Control (Display OSD Text:cam1)>를 설정하세요.

사용 전 제품의 기능 지원 여부와 기기와의 시리얼 통신 연결을 확인합니다.

 - PTZ Protocol : 연결된 PTZ 메커니즘이나 카메라 모듈의 제어 프로토콜과 동일해야 합니다.
변경 후 <Set> 버튼을 클릭하세요.
 - RS485 ID (Rx Address) : 연결된 PTZ 메커니즘이나 카메라 모듈의 ID와 동일해야 합니다.
변경 후 <Set> 버튼을 클릭하세요.
 - Preset : 지정한 숫자로 현재의 PTZ 좌표값을 저장하려면 <Set> 버튼을 클릭하세요.
지정한 숫자에 저장된 PTZ 좌표값을 이용해 PTZ 동작시키려면 <Move> 버튼을 클릭하세요.
 - Camera Reset : 카메라를 재부팅하려면 <Camera Reset> 버튼을 클릭하세요.
 - PTZ 패널 : Pan / Tilt / Zoom / Focus 를 조정합니다.
 - Iris Open / Iris Close 버튼 : 조리개를 조정합니다.
 - OSD Type : 기본값은 <osdmenu>입니다. <custom>을 선택하면 임의의 프로토콜 데이터를 보낼 수 있습니다. (custom 항목은 프로그램 개발 시 사용되는 항목입니다.)
 - ENTER 버튼 / 방향키 패널 : 카메라 모듈 OSD에 진입하여 항목 이동과 해당 값을 선택합니다.
ENTER 버튼 (진입 / 값 설정) / 방향키 (항목 이동 / 값 선택)
5. <일반>을 확인하세요.
 - 밝기/대비/채도/색조 : 기본값 사용을 권장합니다.

카메라 메뉴 진입하기

ENTER 버튼을 클릭하면 카메라 메뉴로 진입합니다.
카메라 메뉴 진입 후 카메라 메뉴 세팅을 진행합니다.



- 카메라 메뉴 부분은 카메라의 업그레이드 및 지속적 품질 개선을 위해 변경될 수 있습니다.
카메라 메뉴 변경시에는 추가 삽지를 통해 설명될 수도 있으나, 카메라 버전과 매뉴얼을 확인하세요.
- PTZ 조작은 네트워크 컨트롤러를 사용하세요.

MAIN MENU

각 기능들은 Visca 프로토콜의 메뉴키 command를 사용하여 설정할 수 있습니다.

메뉴는 메인 메뉴와 서브 메뉴로 구성되어 있습니다.

설정을 저장할 때는 [SAVE]를 선택하세요.

설정을 저장하지 않을 때는 [CLR]를 선택하세요.

전 단계로 이동하려면 [BACK]을 선택하세요.

메뉴에서 빠져 나가려면 [EXIT]를 선택하세요.

MAIN MENU	
⇨ MOTION	▷
DOME	▷
CAMERA	▷
CLEAR	▷
FACTORY SET	
PTZ RESET	
EXIT	
< NEAR / RIGHT ▷ MOTION >	

Motion 설정

Preset

스피드 등의 대표적인 기능으로 키보드 컨트롤러 실행 시 저장된 Preset의 팬, 틸트, 줌 특정 좌표값으로 자동 이동하는 기능입니다.

최대 255개까지 Preset을 저장할 수 있습니다.

MAIN MENU

⇨ MOTION ▷

DOMES ▷

CAMERA ▷

CLEAR ▷

FACTORY SET

PTZ RESET

EXIT

< NEAR / RIGHT ▷ MOTION >

MOTION MENU

⇨ PRESET ▷

TOUR ▷

GROUP ▷

SCAN ▷

PATTERN ▷

AREA ▷

ALARM ▷

PRIVACY ▷

HOME POS ▷

BACK EXIT

< NEAR / RIGHT ▷ PRESET >

1. Preset 번호 설정

- P001 : 설정된 Preset 번호 / 001 : 설정 안된 Preset 번호

이동 :  선택 : 

PRESET MENU

⇨ NUMBER : 001

TITLE : NONE

FOCUS : DISABLE

POSITION SET ▷

EXIT TIME : DISABLE

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ PRESETNUM >

PRESET MENU

PRESET SELECT : 001

001	002	003	004	005
006	007	008	009	010
011	012	013	014	015
016	017	018	019	020
021	022	023	024	025
026	027	028	029	030
031	032	033	034	035
036	037	038	039	040
041	042	043	044	045

< EXIT ▷ FOCUS NEAR >

2. Preset 타이틀 설정

이동 :  선택 :  or  삭제 :  or 

PRESET MENU

NUMBER : 001

⇨ TITLE :

FOCUS : AUTO

POSITION SET ▷

EXIT TIME : DISABLE

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ TITLE SEL >

PRESET TITLE EDIT

TITLE :

▷ 0 1 2 3 4 5 6 7 8 9 (

) A B C D E F G H I J K

L M N O P Q R S T U V W

X Y Z . / , + - = < > @

< STORE ▷ TELE MOVE ▷ JOY >

< DEL ▷ WIDE BACK ▷ NEAR >

Preset 실행 화면에 표시되는 Preset의 TITLE을 원하는 대로 설정할 수 있습니다.

TITLE 설정 후 NEAR 버튼을 누르면 Menu 전 단계로 이동합니다.

3. Preset 설정을 위한 focus 모드 선택

1) Focus 항목 선택

 or 

2) Focus 메뉴 위치 선택



PRESET MENU

NUMBER : 001

TITLE :

⇨ FOCUS : AUTO

POSITION SET ▷

EXIT TIME : DISABLE

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ FOCUS SET >

Focus 메뉴에는 3가지 항목을 선택할 수 있습니다.

→ AUTO, MANUAL, ONESHT.

Preset 위치 이동 후 Focus Mode 선택합니다. (1번 가능)

4. Preset 위치 설정

1) Position 항목 선택



2) 희망 위치 선택



3) NEAR 버튼을 누름



PRESET MENU	
NUMBER	: 001
TITLE	:
FOCUS	: AUTO
⇨ POSITION SET	▷
EXIT TIME	: DISABLE
SAVE CLR BACK EXIT	
< NEAR / RIGHT ▷ POSITION >	

PRESET POSITION	
< EXIT ▷ FOCUS NEAR >	
POSITION : 000.0 000.0	

5. EXIT TIME 설정 방법

이동 : or 선택 : 선택완료 :

PRESET MENU	
NUMBER	: 001
TITLE	:
FOCUS	: AUTO
⇨ POSITION SET	▷
⇨ EXIT TIME	: DISABLE
SAVE CLR BACK EXIT	
< NEAR / RIGHT ▷ EXIT TIME >	

PRESET 동작이 완료된 이후에 PRESET MODE에서 빠져 나오는 시간을 설정할 수 있습니다.
(OFF / 5SEC / 10SEC / 20SEC / 30SEC / 1MIN / 5MIN / 10MIN / 30MIN) * 기본값 : OFF

Tour

저장된 여러 개의 Preset을 선택하여 순서대로 작동하게 할 수 있는 기능으로, 각각 Preset마디의 속도(1~63 step)와 정지시간(1~99sec)의 선택이 가능합니다.
최대 8개의 Tour를 저장할 수 있습니다.

■ 1개의 Tour는 15개의 preset을 설정할 수 있습니다.

MAIN MENU	
⇨ MOTION	▷
DOME	▷
CAMERA	▷
CLEAR	▷
FACTORY SET	
PTZ RESET	
EXIT	
< NEAR / RIGHT ▷ MOTION >	

MOTION MENU	
PRESET	▷
⇨ TOUR	▷
GROUP	▷
SCAN	▷
PATTERN	▷
AREA	▷
ALARM	▷
PRIVACY	▷
HOME POS	▷
BACK	EXIT
< NEAR / RIGHT ▷ TOUR >	

1. Tour 번호 설정

- T01 : 설정된 Tour 번호 / 01 : 설정 안된 Tour 번호

이동 : 선택 :

TOUR MENU	
⇨ NUMBER	: 01
TITLE	:
TOUR SET	▷
TIME DISPLAY	: OFF
SAVE CLR BACK EXIT	
< NEAR / RIGHT ▷ TOUR NUM >	

TOUR SELECT : 01						
T01	02	03	04	05	06	
07	08					
< EXIT ▷ NEAR / MOVE ▷ JOYSTICK >						

설정 화면

2. Tour 타이틀 설정

이동 :  선택 :  or  삭제 :  or 

TOUR MENU

NUMBER : 01

⇨ TITLE :

TOUR SET ▷

TIME DISPLAY : OFF

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ TITLE EDIT >

TOUR TITLE EDIT

TITLE : -----

▷ 0 1 2 3 4 5 6 7 8 9 (

) A B C D E F G H I J K

L M N O P Q R S T U V W

X Y Z . / , + - = < > @

< STORE ▷ TELE MOVE ▷ JOY >

< DEL ▷ WIDE BACK ▷ NEAR >

Tour 실행 화면에 표시되는 Tour의 TITLE 을 원하는 대로 설정할 수 있습니다.

TITLE 설정 후 NEAR 버튼을 누르면 Menu 전 단계로 이동합니다.

3. Tour 대상 Preset 설정

1) TOUR EDIT 항목 설정 2) Preset 번호 선택 3) 완료 후 NEAR 버튼 누름

 or  

TOUR MENU

NUMBER : 01

⇨ TITLE :

⇨ TOUR SET ▷

TIME DISPLAY : OFF

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ TOUR SET >

TOUR EDIT <01>

NO	PRESET	SPEED	DWELL
01	<001>	63	01
02	<002>	63	01
03	XXX	XX	XX
04	XXX	XX	XX
05	XXX	XX	XX
06	XXX	XX	XX
07	XXX	XX	XX
08	XXX	XX	XX

< SEL&NEAR PRESET<LEFT >

< SEL&NEAR DELETE WIDE >

TOUR MENU

PRESET SELECT : 001

001	002	003	004	005
006	007	008	009	010
011	012	013	014	015
016	017	018	019	020
021	022	023	024	025
026	027	028	029	030
031	032	033	034	035
036	037	038	039	040
041	042	043	044	045

< EXIT ▷ FOCUS NEAR >

4. Time Display 설정

이동 :  or  선택 :  선택완료 : 

TOUR MENU

NUMBER : 01

⇨ TITLE :

TOUR SET ▷

⇨ TIME DISPLAY : OFF

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ ON / OFF >

TOUR 동작 중 각 preset의 dwell time에 대해 남은 시간을 표시해줍니다.(OFF / ON) * 기본값 : OFF

GROUP

최대 6개의 Group을 호출하여 내장된 TOUR를 순서대로 호출 및 감시할 수 있습니다.

MAIN MENU

⇨ MOTION ▷

DOVE ▷

CAMERA ▷

CLEAR ▷

FACTORY SET

PTZ RESET

EXIT

< NEAR / RIGHT ▷ MOTION >

MOTION MENU

PRESET ▷

TOUR ▷

⇨ GROUP ▷

SCAN ▷

PATTERN ▷

AREA ▷

ALARM ▷

PRIVACY ▷

HOME POS ▷

BACK EXIT

< NEAR / RIGHT ▷ GROUP >

1. GROUP 번호 설정

- G01 : 설정된 Group 번호 / 01 : 설정 안된 Group 번호
1~6번까지 그룹 설정합니다.

이동 :  선택 : 

GROUP MENU

⇨ NUMBER : 01

⇨ TITLE :

GROUP SET ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ GROUP NUM >

GROUP SELECT : 01

01	02	03	04	05	06
07	08				

< EXIT ▷ FOCUS NEAR >

2. GROUP 타이틀 설정

이동 :  선택 :  or  삭제 :  or 

GROUP MENU

NUMBER : 01
 ⇨ TITLE :
 GROUP SET ▷

SAVE CLR BACK EXIT
 < NEAR / RIGHT ▷ TITLE >

GROUP TITLE EDIT

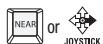
 TITLE :
 ▷ 0 1 2 3 4 5 6 7 8 9 () A B C D E F G H I J K
 L M N O P Q R S T U V W
 X Y Z . / , + - = < > @

< STORE ▷ TELE MOVE ▷ JOY >
 < DEL ▷ WIDE BACK ▷ NEAR >

GROUP 실행 화면에 표시되는 GROUP의 TITLE을 원하는 대로 설정할 수 있습니다.
 TITLE 설정 후 NEAR 버튼을 누르면 Menu 전 단계로 이동합니다.

3. GROUP SET 설정

1) GROUP EDIT 항목 설정 2) TOUR 번호 선택 3) 완료 후 NEAR 버튼을 누름



GROUP MENU

NUMBER : 01
 TITLE :
 ⇨ GROUP SET ▷

SAVE CLR BACK EXIT
 < NEAR / RIGHT ▷ GROUP SET >

GROUP EDIT <01>

NO	TOUR
01	<001>
02	002
03	XXX
04	XXX
05	XXX
06	XXX

< SEL&NEAR PRESET&LEFT >
 < SEL&NEAR DELETE WIDE >

GROUP EDIT : 1~6번까지 TOUR를 설정합니다.

Scan

두 지점의 위치를 좌우로 왕복하여 감시하는 기능입니다. 두 지점 왕복시 속도 조절(1~63 step)이 가능하며 8개의 Scan을 저장할 수 있습니다.

MAIN MENU

⇨ MOTION ▷
 DOME ▷
 CAMERA ▷
 CLEAR ▷
 FACTORY SET
 PTZ RESET

EXIT
 < NEAR / RIGHT ▷ MOTION >

MOTION MENU

PRESET ▷
 TOUR ▷
 GROUP ▷
 ⇨ SCAN ▷
 PATTERN ▷
 AREA ▷
 ALARM ▷
 PRIVACY ▷
 HOME POS ▷

BACK EXIT
 < NEAR / RIGHT ▷ SCAN >

1. Scan 번호 설정

- S01 : 설정된 Scan 번호 / 01 : 설정 안된 Scan 번호

이동 :  선택 : 

SCAN MENU

⇨ NUMBER : 01
 TITLE : NONE
 SPEED : NONE
 DWELL : NONE
 MOTION TYPE : NONE
 DIRECTION : NONE
 START POS ▷
 END POS ▷

SAVE CLR BACK EXIT
 < NEAR / RIGHT ▷ SCAN NUM >

SCAN SELECT : 01

01	02	03	04	05	06
07	08				

< EXIT ▷ FOCUS NEAR >

2. Scan 타이틀 설정

이동 :  선택 :  or  삭제 :  or 

SCAN MENU

NUMBER : 01
 ⇨ TITLE :
 SPEED : NONE
 DWELL : NONE
 MOTION TYPE : NONE
 DIRECTION : NONE
 START POS ▷
 END POS ▷

SAVE CLR BACK EXIT
 < NEAR / RIGHT ▷ LABEL SEL >

SCAN TITLE EDIT

 TITLE :
 ▷ 0 1 2 3 4 5 6 7 8 9 () A B C D E F G H I J K
 L M N O P Q R S T U V W
 X Y Z . / , + - = < > @

< STORE ▷ TELE MOVE ▷ JOY >
 < DEL ▷ WIDE BACK ▷ NEAR >

Scan 실행 화면에 표시되는 Scan의 TITLE을 원하는 대로 설정할 수 있습니다.
 TITLE 설정 후 NEAR 버튼을 누르면 Menu 전 단계로 이동합니다.

설정 화면

3. Scan 속도 설정

Increase :  or  Decrease :  or 

SCAN MENU	
NUMBER	: 01
TITLE	:
⇨ SPEED	: NONE
DWELL	: NONE
MOTION TYPE	: NONE
DIRECTION	: NONE
START POS	▷
END POS	▷
SAVE	CLR BACK EXIT
< NEAR / RIGHT ▷ MOVE SPEED >	

동작속도는 1~63 단계로 조절할 수 있습니다.

4. Dwell Time 설정

Increase :  or  Decrease :  or 

SCAN MENU	
NUMBER	: 01
TITLE	:
SPEED	: NONE
⇨ DWELL	: NONE
MOTION TYPE	: NONE
DIRECTION	: NONE
START POS	▷
END POS	▷
SAVE	CLR BACK EXIT
< NEAR / RIGHT ▷ DWELL >	

Scan 동작후 다음 Scan이 실행되기 전까지의 체류시간을 말합니다. 00~59초까지 설정이 가능합니다.

5. Motion Type

이동 :  or  선택 :  선택완료 : 

SCAN MENU	
NUMBER	: 01
TITLE	:
SPEED	: NONE
DWELL	: NONE
⇨ MOTION TYPE	: NONE
DIRECTION	: NONE
START POS	▷
END POS	▷
SAVE	CLR BACK EXIT
< NEAR / RIGHT ▷ P / T SELECT >	

PAN/TILT 방향을 설정합니다.

PAN 설정 시 지정된 좌표 값 에서 PAN 만 SCAN 진행 / TILT 설정 시 지정된 좌표 값 에서 TILT 만 SCAN 진행합니다.

6. Direction

이동 :  or  선택 :  선택완료 : 

SCAN MENU	
NUMBER	: 01
TITLE	:
SPEED	: NONE
DWELL	: NONE
MOTION TYPE	: NONE
⇨ DIRECTION	: NONE
START POS	▷
END POS	▷
SAVE	CLR BACK EXIT
< NEAR / RIGHT ▷ DIRECTION >	

PAN : Clock Wise 및 C_Clock Wise 진행 방향을 설정합니다.

C_Clock WISE 설정시 시계 반대 방향으로 진행

Clock WISE 설정시 시계 방향으로 진행

TILT : U&D(UP & DOWN) 설정합니다.

7. Scan 시작 위치 설정

- 1) START POSITION 선택 2) 위치 선택 3) NEAR 버튼을 누름



SCAN MENU	
NUMBER	: 01
TITLE	:
SPEED	: NONE
DWELL	: NONE
MOTION TYPE	: NONE
DIRECTION	: NONE
⇨ START POS	▷
END POS	▷
SAVE CLR BACK EXIT	
< NEAR / RIGHT ▷ START POS >	

SCAN START POSITION	
< EXIT ▷ FOCUS NEAR >	
POSITION : 000.0 000.0	

8. Scan 완료 위치 설정

- 1) END POSITION 선택 2) 위치 선택 3) NEAR 버튼을 누름



SCAN MENU	
NUMBER	: 01
TITLE	:
SPEED	: NONE
DWELL	: NONE
MOTION TYPE	: NONE
DIRECTION	: NONE
START POS	▷
⇨ END POS	▷
SAVE CLR BACK EXIT	
< NEAR / RIGHT ▷ END POS >	

SCAN END POSITION	
< EXIT ▷ FOCUS NEAR >	
POSITION : 000.0 000.0	

Motion Type : PAN인 경우 PAN만 이동 가능합니다.
TILT인 경우 TILT만 이동 가능합니다.

Pattern

사용자가 Pan, Tilt, Zoom 동작시킨 패턴을 저장하여 키보드 컨트롤러로 실행 시 저장 패턴을 자동 실행하는 기능입니다.

최대 저장 시간은 65초까지 가능하며 4개의 Pattern을 저장할 수 있습니다.

MAIN MENU	
⇨ MOTION	▷
DOM	▷
CAMERA	▷
CLEAR	▷
FACTORY SET	
PTZ RESET	
EXIT	
< NEAR / RIGHT ▷ MOTION >	

MOTION MENU	
PRESET	▷
TOUR	▷
GROUP	▷
SCAN	▷
⇨ PATTERN	▷
AREA	▷
ALARM	▷
PRIVACY	▷
HOME POS	▷
BACK EXIT	
< NEAR / RIGHT ▷ PATTERN >	

1. Pattern 번호 설정

- PAT01 : 설정된 Pattern 번호 / 01 : 설정 안된 Pattern 번호

이동 : 선택 :

PATTERN MENU	
⇨ NUMBER	: 01
TITLE	: NONE
RECORD	▷
PLAY	▷
SAVE CLR BACK EXIT	
< NEAR / RIGHT ▷ NUMBER >	

PATTERN SELECT : 01			
01	02	03	04
< EXIT ▷ FOCUS NEAR >			

2. Pattern 타이틀 설정

이동 : 선택 : or 삭제 : or

PATTERN MENU	
NUMBER	: 01
⇨ TITLE	:
RECORD	▷
PLAY	▷
SAVE CLR BACK EXIT	
< NEAR / RIGHT ▷ TITLE EDIT >	

PATTERN TITLE EDIT	
TITLE :	
▷ 0 1 2 3 4 5 6 7 8 9 (	
) A B C D E F G H I J K	
L M N O P Q R S T U V W	
X Y Z . / , + - = < > @	
< STORE ▷ TELE MOVE ▷ JOY >	
< DEL ▷ WIDE BACK ▷ NEAR >	

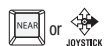
Pattern 실행 화면에 표시되는 Pattern의 TITLE을 원하는 대로 설정할 수 있습니다.

TITLE 설정 후 NEAR 버튼을 누르면 Menu 전 단계로 이동합니다.

설정 화면

3. Pattern 내용 설정

1) RECORD SAVE 선택



2) 설정할 패턴 녹화



3) NEAR 버튼 누름 → EXIT
FAR 버튼 누름 → RECORD ON

PATTERN MENU

NUMBER : 01
TITLE :
⇒ RECORD ▷
PLAY ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ RECORD >

PATTERN RECORD

<NEAR ▷ EXIT>
<FAR ▷ ON>

POSITION : 000.0, 000.0

4. 녹화된 Pattern 내용 재생

PATTERN MENU

NUMBER : 01
TITLE :
⇒ RECORD ▷ <08SEC>
PLAY ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ PLAY >

Area

특정 구간 상에 문구를 나타낼 수 있는 기능으로 최대 16 Area를 저장할 수 있습니다.

MAIN MENU

⇒ MOTION ▷
DOME ▷
CAMERA ▷
CLEAR ▷
FACTORY SET
PTZ RESET

EXIT

< NEAR / RIGHT ▷ MOTION >

MOTION MENU

PRESET ▷
TOUR ▷
GROUP ▷
SCAN ▷
PATTERN ▷
⇒ AREA ▷
ALARM ▷
PRIVACY ▷
HOME POS ▷
BACK EXIT

< NEAR / RIGHT ▷ AREA >

1. Area 번호 설정

- AR01 : 설정된 Area 번호 / 01 : 설정 안된 Area 번호

이동 : 선택 :

AREA MENU

⇒ NUMBER : 01
TITLE : NONE
DIRECTION : NONE
S PAN POS. ▷
E PAN POS. ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT & AREA NO >

AREA SELECT : 01

01	02	03	04	05	06
07	08	09	10	11	12
13	14	15	16		

< EXIT ▷ FOCUS NEAR >

2. Area 타이틀 설정

이동 : 선택 : or 삭제 : or

AREA MENU

NUMBER : 01
⇒ TITLE :
DIRECTION : NONE
S PAN POS. ▷
E PAN POS. ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT & TITLE EDIT >

AREA TITLE EDIT

TITLE :
▷ 0 1 2 3 4 5 6 7 8 9 () A B C D E F G H I J K L M N O P Q R S T U V W X Y Z . / , + - = < > @

< STORE ▷ TELE MOVE ▷ JOY >
< DEL ▷ WIDE BACK ▷ NEAR >

Area 실행 화면에 표시되는 Area의 타이틀을 원하는 대로 설정할 수 있습니다.

TITLE 설정 후 NEAR 버튼을 누르면 Menu 전 단계로 이동합니다.

3. Direction 설정

이동 :  or  선택 :  선택완료 : 

AREA MENU

NUMBER : 01

TITLE :

⇨ DIRECTION : CLOCK WISE

S PAN POS. ▷

E PAN POS. ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT & START POS >

C_Clock WISE 설정시 시계 반대 방향으로 표시합니다.
Clock WISE 설정시 시계 방향으로 표시합니다.

4. 구간 시작 위치 설정

1) START PAN POSITION 선택 2) 위치 선택 3) NEAR 버튼을 누름



AREA MENU

NUMBER : 01

TITLE :

DIRECTION : NONE

⇨ S PAN POS. ▷

E PAN POS. ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT & END POS >

AREA START PAN POSITION

< EXIT ▷ FOCUS NEAR >

POSITION : 000.0 000.0

5. 구간 종료 위치 설정

1) END PAN POSITION 선택



2) 위치 선택



3) NEAR 버튼을 누름



AREA MENU

NUMBER : 01

TITLE :

DIRECTION : NONE

S PAN POS. ▷

⇨ E PAN POS. ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT & PATTERN >

AREA END PAN POSITION

< EXIT ▷ FOCUS NEAR >

POSITION : 000.0 000.0

Alarm

외부 센서로부터 신호를 받아 설정되어있는 Preset Position으로 자동 이동하는 기능입니다. 최대 8개의 Alarm을 저장할 수 있습니다.

MAIN MENU

⇨ MOTION ▷

DOME ▷

CAMERA ▷

CLEAR ▷

FACTORY SET

PTZ RESET

EXIT

< NEAR / RIGHT ▷ MOTION >

MOTION MENU

PRESET ▷

TOUR ▷

GROUP ▷

SCAN ▷

PATTERN ▷

AREA ▷

⇨ ALARM ▷

PRIVACY ▷

HOME POS ▷

BACK EXIT

< NEAR / RIGHT ▷ ALARM >

1. Alarm 번호 설정

- E01 : 설정된 Alarm 번호 / 01 : 설정 안된 Alarm 번호

이동 :  선택 : 

ALARM MENU

⇨ NUMBER : 01

TITLE : NONE

PRESET NUM : NONE

<<FIRST TITLE SELECT>>

SAVE CLR BACK EXIT

< NEAR / RIGHT & NUMBER >

ALARM SELECT : 01

01 02 03 04 05 06

07 08

< EXIT ▷ FOCUS NEAR >

설정 화면

2. Alarm 타이틀 설정

이동 :  선택 :  or  삭제 :  or 

ALARM MENU

NUMBER : 01

↵ TITLE :

PRESET NUM : NONE

SAVE CLR BACK EXIT

< NEAR / RIGHT & TITLE EDIT >

ALARM TITLE EDIT

TITLE :

▷ 0 1 2 3 4 5 6 7 8 9 (

) A B C D E F G H I J K

L M N O P Q R S T U V W

X Y Z . / , + - = < > @

< STORE ▷ TELE MOVE ▷ JOY >

< DEL ▷ WIDE BACK ▷ NEAR >

Alarm 실행 화면에 표시되는 Alarm의 TITLE을 원하는 대로 설정할 수 있습니다.

TITLE 설정 후 NEAR 버튼을 누르면 Menu 전 단계로 이동합니다.

3. Alarm 작동시 이동할 Preset 번호 설정

- 1) Preset Num 항목 선택 2) 이동할 Preset 설정 3) NEAR 버튼을 누름



ALARM MENU

NUMBER : 01

TITLE :

↵ PRESET NUM : NONE

SAVE CLR BACK EXIT

< MOVE & NEAR / JOYSTICK >

ALARM MENU

PRESET SELECT : 001

001 002 003 004 005

006 007 008 009 010

011 012 013 014 015

016 017 018 019 020

021 022 023 024 025

026 027 028 029 030

031 032 033 034 035

036 037 038 039 040

041 042 043 044 045

< EXIT ▷ FOCUS NEAR >

Privacy

감시 영역 중에 사생활 보호가 필요한 영역에 대하여 마스킹 처리하는 기능입니다.
최대 8개까지 설정가능합니다.

MAIN MENU

↵ MOTION ▷

DOME ▷

CAMERA ▷

CLEAR ▷

FACTORY SET

PTZ RESET

EXIT

< NEAR / RIGHT ▷ MOTION >

MOTION MENU

PRESET ▷

TOUR ▷

GROUP ▷

SCAN ▷

PATTERN ▷

AREA ▷

ALARM ▷

↵ PRIVACY ▷

HOME POS ▷

BACK EXIT

< NEAR / RIGHT ▷ PRIVACY >

1. Privacy Zone 번호 설정

- R01 : 설정된 Privacy 번호 / 01 : 설정 안된 Privacy 번호

이동 :  선택 : 

PRIVACY MENU

↵ NUMBER : 01

MASK SET ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ NUMBER >

PRIVACY SELECT : 01

01 02 03 04 05 06

07 08

< EXIT ▷ FOCUS NEAR >

2. Mask set 설정

이동 :  선택 :  or  삭제 :  or 

PRIVACY MENU

NUMBER : 01

↵ MASK SET ▷

SAVE CLR BACK EXIT

< NEAR / RIGHT ▷ MASK SET >

PRIVACY MASK SET

MASK SIZE : < OPEN / CLOSE >

POSITION : 000.0 000.0

Privacy 실행 화면에 표시되는 Privacy의 위치를 원하는 대로 설정할 수 있습니다.

Privacy 설정 후 NEAR 버튼을 누르면 Menu 전 단계로 이동합니다.

Home Position

홈으로 선택된 좌표로 이동하는 기능입니다. 최대 255개까지 설정가능합니다.

MAIN MENU		MOTION MENU	
⇨ MOTION	▷	PRESET	▷
DOME	▷	TOUR	▷
CAMERA	▷	GROUP	▷
CLEAR	▷	SCAN	▷
FACTORY SET		PATTERN	▷
PTZ RESET		AREA	▷
		ALARM	▷
		PRIVACY	▷
		⇨ HOME POS	▷
EXIT		BACK	EXIT
< NEAR / RIGHT ▷ MOTION >		< NEAR / RIGHT ▷ HOME POS >	

1. Home Position ON/OFF 설정

이동 :  선택 : 

HOME POS MENU	
⇨ ON/OFF	: OFF
POSITION SET	▷
SAVE CLR BACK EXIT	
< NEAR / RIGHT & ON OFF >	

2. Home Position SET 설정

이동 :  선택 : 

HOME POS MENU	
ON/OFF	: OFF
⇨ POSITION SET	▷
SAVE CLR BACK EXIT	
< NEAR / RIGHT & POS. SET >	

Dome 설정

Pan, Tilt, Zoom 동작을 설정할 수 있습니다.

MAIN MENU	
MOTION	▷
⇨ DOME	▷
CAMERA	▷
CLEAR	▷
FACTORY SET	
PTZ RESET	
EXIT	
< NEAR / RIGHT ▷ DOME EXT >	

TITLE 설정

이동 :  선택 :  or  삭제 :  or 

DOME MENU	
⇨ TITLE	:
SPEED BY ZOOM	: ON
OSD ON/OFF	▷
PARK MODE	▷
TEMPERATURE	▷
SPECIAL	▷
ZERO POS	▷
DOME RESET	
NEXT	SAVE BACK EXIT
< NEAR / RIGHT ▷ TITLE SET >	

TITLE SET	
TITLE :	
▷	0 1 2 3 4 5 6 7 8 9 (
)	A B C D E F G H I J K
	L M N O P Q R S T U V W
	X Y Z . / , + - = < > @
< STORE ▷ TELE MOVE ▷ JOY >	
< DEL ▷ WIDE BACK ▷ NEAR >	

TITLE 설정 후 NEAR 버튼을 누르면 전 단계로 이동합니다.

Speed By Zoom ON/OFF 설정

Speed By Zoom ON 설정시 Pan, Tilt 속도 조정이 가능합니다. (최대 줌에서 확인 가능)

이동 :  or  선택 :  선택완료 : 

DOME MENU	
TITLE	:
⇨ SPEED BY ZOOM	: ON
OSD ON/OFF	▷
PARK MODE	▷
TEMPERATURE	▷
SPECIAL	▷
ZERO POS	▷
DOME RESET	
NEXT	SAVE BACK EXIT
< NEAR / RIGHT ▷ FUCTION >	

설정 화면

OSD ON/OFF 기능 설정

카메라 화면상에 나타나는 OSD 설명을 끄거나 켤 수 있는 기능입니다.

이동 :  or  선택 :  선택완료 : 

DOME MENU	
TITLE	:
SPEED BY ZOOM	: ON
⇨ OSD ON/OFF	▷
PARK MODE	▷
TEMPERATURE	▷
SPECIAL	▷
ZERO POS	▷
DOME RESET	
NEXT	SAVE BACK EXIT
< NEAR / RIGHT ▷ SUB MENU >	

OSD ON/OFF			
TITLE	: <O>	PATTERN	: O
ZOOM	: X	PRIVACY	: O
PRESET	: O	AREA	: O
TOUR	: O	ALARM	: O
GROUP	: O	POSITION	: X
SCAN	: O	ACTION	: O
< NEAR ▷ TELE MOVE ▷ JOY >			
< DEL ▷ WIDE BACK ▷ NEAR >			

PARK MODE 설정

PTZ 동작이 정지해 있을 때 설정한 시간이 지난 후 지정된 MOTION 기능이 동작합니다.

이동 :  or 

DOME MENU	
TITLE	:
SPEED BY ZOOM	: ON
OSD ON/OFF	▷
⇨ PARK MODE	▷
TEMPERATURE	▷
SPECIAL	▷
ZERO POS	▷
DOME RESET	
NEXT	SAVE BACK EXIT
< NEAR / RIGHT ▷ SUB MENU >	

PARK MENU	
ON/OFF	: ON
TIME	: ----
MOTION	: -----
NUMBER	: ----
BACK	
< NEAR / RIGHT & ONOFF >	

- ON/OFF : ON/OFF 설정 가능
- TIME : 10초~1 HOUR 설정 가능
- MOTION : PRESET / TOUR / GROUP / SCAN / PATTERN 설정 가능
- NUMBER
 - PRESET : 1~255 설정 가능
 - TOUR : 1~8 설정 가능
 - GROUP : 1~6 설정가능
 - SCAN : 1~8 설정 가능
 - PATTERN : 1~4 설정 가능

TEMPERATURE 설정

제품 내부의 온도를 확인하여 제품이 동작하는 것에 있어 최적의 온도를 유지 시켜주는 기능입니다.

DOME MENU	
TITLE	:
SPEED BY ZOOM	: ON
OSD ON/OFF	▷
PARK MODE	▷
⇨ TEMPERATURE	▷
SPECIAL	▷
ZERO POS	▷
DOME RESET	
NEXT	SAVE BACK EXIT
< NEAR / RIGHT ▷ SUB MENU >	

1. HEATER ON

HEATER를 동작 시키는 온도를 설정합니다. (0~70°C)

이동 :  or  선택 :  선택완료 : 

TEMP. MENU	
⇨ HEATER ON	: 5 C
ON TIME	: 30MIN
HEATER OFF	: 30 C
FAN ON	: 50 C
FAN OFF	: 40 C
CURRENT TEMPER : 026.1	
BACK	
< NEAR / RIGHT ▷ ON TEMP >	

2. ON TIME

HEATER의 동작 시간을 설정합니다. (10~60분, 10분 단위 설정)

이동 :  or  선택 :  선택완료 : 

TEMP. MENU	
HEATER ON	: 5 C
⇨ ON TIME	: 30MIN
HEATER OFF	: 30 C
FAN ON	: 50 C
FAN OFF	: 40 C
CURRENT TEMPER : 026.1	
BACK	
< NEAR / RIGHT ▷ ON TIME >	

3. HEATER OFF

HEATER의 동작을 멈추는 온도를 설정합니다. (0~70°C)

이동 : or 선택 : 선택완료 :

TEMP. MENU

HEATER ON	: 5 C
ON TIME	: 30MIN
⇨ HEATER OFF	: 30 C
FAN ON	: 50 C
FAN OFF	: 40 C

CURRENT TEMPER : 026.1

BACK

< NEAR / RIGHT > OFF TEMP >

4. FAN ON

FAN 동작의 시작 온도를 설정합니다. (0~70°C)

이동 : or 선택 : 선택완료 :

TEMP. MENU

HEATER ON	: 5 C
ON TIME	: 30MIN
HEATER OFF	: 30 C
⇨ FAN ON	: 50 C
FAN OFF	: 40 C

CURRENT TEMPER : 026.1

BACK

< NEAR / RIGHT > FAN ON >

5. FAN OFF

FAN 동작의 멈추는 온도를 설정합니다. (0~70°C)

이동 : or 선택 : 선택완료 :

TEMP. MENU

HEATER ON	: 5 C
ON TIME	: 30MIN
HEATER OFF	: 30 C
FAN ON	: 50 C
⇨ FAN OFF	: 40 C

CURRENT TEMPER : 026.1

BACK

< NEAR / RIGHT > FAN OFF >

Special 설정

DOME MENU

TITLE	:
SPEED BY ZOOM	: ON
OSD ON/OFF	>
PARK MODE	>
TEMPERATURE	>
⇨ SPECIAL	>
ZERO POS	>
DOME RESET	>

NEXT SAVE BACK EXIT

< NEAR / RIGHT > SUB MENU >

1. HDSI FORMAT

이동 : or 선택 : 선택완료 :

SPECIAL MENU

⇨ HDSI FORMAT	: 1080p30
POWER UP	: OFF
FLIP TYPE	: FLIP
SCROLL TYPE	: STEP
RESPONSE	: OFF
P-FREEZE	: OFF

BACK

< NEAR / RIGHT > FORMAT CHG >

- 1080p/30(25)fps / 720p/60(50)fps
- 1080p/30(25)fps / 1080p/60(50)fps(Optional) / 720p/30(25)fps / 720p/60(50)fps
 - Video Format 설정은 제품사양별로 차이가 있습니다.
 - 아날로그 출력은 Video Format이 적용되지 않습니다.

2. POWER UP

POWER UP ACTION 작동 시 어떠한 기능을 수행하다 정전이나 전원이 OFF될 경우 OFF 전 기능을 기억하여 전원 ON시 다시 기능을 수행합니다.

이동 : or 선택 : 선택완료 :

SPECIAL MENU

HDSI FORMAT	: 1080p30
⇨ POWER UP	: OFF
FLIP TYPE	: FLIP
SCROLL TYPE	: STEP
RESPONSE	: OFF
P-FREEZE	: OFF

BACK

< NEAR / RIGHT > PWR UP SET >

3. FLIP TYPE

이동 :  or  선택 :  선택완료 : 

SPECIAL MENU

HDSDI FORMAT	: 1080p30
POWER UP	: OFF
↩ FLIP TYPE	: FLIP
SCROLL TYPE	: STEP
RESPONSE	: OFF
P-FREEZE	: OFF

BACK

< NEAR / RIGHT ▷ AUTOFLIP >

- OFF : TILT 이동 범위가 0 ~ 90도로 제한
- FLIP : TILT가 90도로 이동 시 PAN 180도 반전 이동됨

4. SCROLL TYPE

커서 진행 방법을 설정합니다.

이동 :  or  선택 :  선택완료 : 

SPECIAL MENU

HDSDI FORMAT	: 1080p30
POWER UP	: OFF
FLIP TYPE	: FLIP
↩ SCROLL TYPE	: STEP
RESPONSE	: OFF
P-FREEZE	: OFF

BACK

< NEAR / RIGHT ▷ TYPE >

- STEP : 한 STEP시만 진행
- AUTO : 지속적으로 SCROLL 이동 가능

5. RESPONSE TXD

Tx 통신 라인으로 고유의 프로토콜 응답 값을 전송하는 기능입니다. (pelco-D 5.0 EZ 프로토콜일 때 사용)

이동 :  or  선택 :  선택완료 : 

SPECIAL MENU

HDSDI FORMAT	: 1080p30
POWER UP	: OFF
FLIP TYPE	: FLIP
SCROLL TYPE	: STEP
↩ RESPONSE	: OFF
P-FREEZE	: OFF

BACK

< NEAR / RIGHT ▷ ON/OFF >

6. P-FREEZE

PRESET 동작 시 이동 구간에서는 화면이 정지되어 있는 기능입니다.

이동 :  or  선택 :  선택완료 : 

SPECIAL MENU

HDSDI FORMAT	: 1080p30
POWER UP	: OFF
FLIP TYPE	: FLIP
SCROLL TYPE	: STEP
RESPONSE	: OFF
↩ P-FREEZE	: OFF

BACK

< NEAR / RIGHT ▷ ON/OFF >

ZERO POS 설정

ON시 ZERO POS 변경 가능합니다.
POSITION 지정 시 000.0 / 000.0 변경

이동 :  or  선택 :  선택완료 : 

DOME MENU			
TITLE	:		
SPEED BY ZOOM	:	ON	
OSD ON/OFF		▷	
PARK MODE		▷	
TEMPERATURE		▷	
SPECIAL		▷	
⇨ ZERO POS		▷	
DOME RESET			
NEXT	SAVE	BACK	EXIT
< NEAR / RIGHT ▷ ZERO POS >			

ZERO POS MENU	
⇨ ON/OFF	: OFF
POSITION SET	▷
BACK	
< NEAR / RIGHT ▷ ONOFF >	

DOME RESET 설정

DOME MENU 초기화 가능합니다.

DOME MENU			
TITLE	:		
SPEED BY ZOOM	:	ON	
OSD ON/OFF		▷	
PARK MODE		▷	
TEMPERATURE		▷	
SPECIAL		▷	
ZERO POS		▷	
⇨ DOME RESET			
NEXT	SAVE	BACK	EXIT
< NEAR / RIGHT ▷ DOME INIT >			

EXTERNAL IR 설정

IR 설정 가능합니다.

DOME MENU	
⇨ EXTERNAL IR SET	▷
WIPER SETTING	▷
BACK	
< NEAR / RIGHT ▷ SUB MENU >	

1. IR SYNC MODE

이동 :  or  선택 :  선택완료 : 

EXT IR SETTING	
⇨ IR SYNC MODE	: ALS SYNC
IR ILLUMINATE	: HIGHEST
ICR CHG LUX	: 2 LUX
IR CONT. TYPE	: AUTO
IR OFFSET	: 0
BACK	
< NEAR / RIGHT ▷ SYNC SET >	

- ALS SYNC : 가시광선 영역에 동기화 함
- ALL ON : IR 항상 켜짐
- ALL OFF : IR 항상 꺼짐
- ICR SYNC : Camera ICR 상태와 연동되어 External IR 동작
 - 초기 공장출하 모드는 ALS SYNC.

2. IR ILLUMINATE

이동 :  or  선택 :  선택완료 : 

EXT IR SETTING

IR SYNC MODE	: ALS SYNC
↔ IR ILLUMINATE	: HIGHEST
ICR CHG LUX	: 2 LUX
IR CONT. TYPE	: AUTO
IR OFFSET	: 0

BACK

< NEAR / RIGHT ▷ ILLUMINATE >

- HIGHEST : 최고로 많은 IR 광량 출력
- HIGH : 많은 IR 광량 출력
- LOWEST : 최하로 적은 IR 광량 출력
- LOW : 낮은 IR 광량 출력
 - 초기 공장출하 모드는 HIGHEST.

3. ICR CHG LUX

이동 :  or  선택 :  선택완료 : 

EXT IR SETTING

IR SYNC MODE	: ALS SYNC
IR ILLUMINATE	: HIGHEST
↔ ICR CHG LUX	: 2 LUX
IR CONT. TYPE	: AUTO
IR OFFSET	: 0

BACK

< NEAR / RIGHT ▷ ICR LUX >

Day / Night ICR 조도 값을 설정합니다. (0.5~10)

- 초기 공장출하 모드는 2.0 LUX.

4. IR CONT. TYPE

이동 :  or  선택 :  선택완료 : 

EXT IR SETTING

IR SYNC MODE	: ALS SYNC
IR ILLUMINATE	: HIGHEST
ICR CHG LUX	: 2 LUX
↔ IR CONT. TYPE	: AUTO
IR OFFSET	: 0

BACK

< NEAR / RIGHT ▷ CONTROLMOD >

IR ZOOM 관련 AUTO / MANUAL 전환 설정합니다.

- 초기 공장출하 모드는 AUTO.

5. IR OFFSET

이동 :  or  선택 :  선택완료 : 

EXT IR SETTING

IR SYNC MODE	: ALS SYNC
IR ILLUMINATE	: HIGHEST
ICR CHG LUX	: 2 LUX
IR CONT. TYPE	: AUTO
↔ IR OFFSET	: 0

BACK

< NEAR / RIGHT ▷ IR OFFSET >

IR 감도를 설정합니다. (-4~4)

- 초기 공장출하 모드는 0.

WIPER 설정

와이퍼 설정 기능입니다.

DOME MENU

EXTERNAL IR SET >
⇨ WIPER SETTING >

BACK

< NEAR / RIGHT > SUB MENU >

1. WIPER MODE

이동 : or 선택 : 선택완료 :

WIPER SETTING

⇨ WIPER MODE : OFF MODE
WIPER POS. : RIGHT
WIPER TIME : XXXX

BACK

< NEAR / RIGHT > WIPER MODE >

와이퍼 기능의 사용여부를 설정합니다. (ON MODE / OFF MODE / TIME SET)

- TIME SET : WIPER Time에 설정한 시간 간격으로 Wiper가 1번씩 동작됨.
 - 초기 공장출하 모드는 OFF.

2. WIPER POS.

이동 : or 선택 : 선택완료 :

WIPER SETTING

WIPER MODE : OFF MODE
⇨ WIPER POS. : RIGHT
WIPER TIME : XXXX

BACK

< NEAR / RIGHT > WIPER POS. >

WIPER 기본 위치를 설정합니다. (RIGHT)

3. WIPER INTERVAL TIME

이동 : or 선택 : 선택완료 :

WIPER SETTING

WIPER MODE : OFF MODE
WIPER POS. : RIGHT
⇨ WIPER TIME : XXXX

BACK

< NEAR / RIGHT > WIPER TIME >

1 MIN / 2 MIN / 4 MIN / 6 MIN / 8 MIN / 10 MIN / 30 MIN / 1 HOUR
 WIPER MODE가 TIME SET 설정 시 선택 가능합니다.

CAMERA MENU 기능

초점, 거리 조절, 색상, 밝기의 CAMERA 전반적인 모든 기능을 사용자에게 맞게 설정하는 MENU 입니다.

설정방법

[] 키로 설정한 후 원하는 기능을 조이스틱 () 키를 움직여 정한 후 [] 키로 빠져 나갑니다.

MAIN MENU

MOTION >
DOME >
⇨ CAMERA >
CLEAR >
FACTORY SET
PTZ RESET

EXIT

< NEAR / RIGHT > CAMERA >

ZOOM MODE

사용자에게 맞게 ZOOM SPD를 단계별로 조정하며, D-ZOOM(Digital Zoom) 또한 사용 여부를 결정하는 기능입니다.

CAMERA MENU

⇨ ZOOM MODE >
FOCUS MODE >
WHITE BAL. >
AUTO EXP. >
WDR MODE >
STABILIZER >
SPECIAL >
CAMERA RESET

SAVE BACK EXIT

< NEAR / RIGHT > ZOOM MODE >

설정 화면

1. ZOOM SPD 설정

ZOOM MODE 위치에서 [F4] 키를 동작시키면 왼쪽 화면으로 이동합니다. (0 ~ 7단계, USER는 기본 속도)

ZOOM MENU	
⇨ ZOOM SPD	: USER
D-ZOOM	: OFF
BACK	
< NEAR / RIGHT ▷ ZOOM SPD >	

2. D-ZOOM 설정

ON : D-ZOOM 동작, OFF : D-ZOOM 동작 무

ZOOM MENU	
ZOOM SPD	: USER
⇨ D-ZOOM	: OFF
BACK	
< NEAR / RIGHT ▷ D-ZOOM >	

FOCUS MODE

사물의 초점을 잡아주는 기능입니다.

CAMERA MENU	
ZOOM MODE	▷
⇨ FOCUS MODE	▷
WHITE BAL.	▷
AUTO EXP.	▷
WDR MODE	▷
STABILIZER	▷
SPECIAL	▷
CAMERA RESET	
SAVE	BACK EXIT
< NEAR / RIGHT ▷ FOCUS MODE >	

1. FOCUS SPD 설정

FOCUS MODE 위치에서 [F4] 키를 동작시키면 왼쪽 화면으로 이동합니다. (0 ~ 7단계, USER는 기본 속도)

FOCUS MENU	
⇨ FOCUS SPD	: USER
FOCUS MODE	: AUTO
NEAR LIMIT	: 1.5M
AF MODE	: NORMAL
BACK	
< NEAR / RIGHT ▷ FOCUS SPD >	

2. FOCUS MODE 설정

FOCUS MODE를 원하는 위치에 놓고 설정합니다. (AUTO, MANUAL, ONE PUSH, INFINITY)

FOCUS MENU	
FOCUS SPD	: USER
⇨ FOCUS MODE	: AUTO
NEAR LIMIT	: 1.5M
AF MODE	: NORMAL
BACK	
< NEAR / RIGHT ▷ FOCUS MODE >	

- AUTO : 자동 초점 기능입니다.
- MANUAL : 사용자가 NEAR, FAR 키를 동작하여 초점을 잡는다.
- ONEPUSH : 원하는 지점을 지속적으로 포커스로 고정하기 위한 기능입니다.
- INFINITY : 포커스 거리를 무한설정으로 두는 상태를 말합니다.

3. NEAR LIMIT 설정

1.0 CM ~ OVERINF 까지 초점 거리를 지정할 수 있습니다.

FOCUS MENU	
FOCUS SPD	: USER
FOCUS MODE	: AUTO
⇨ NEAR LIMIT	: 1.5M
AF MODE	: NORMAL
BACK	
< NEAR / RIGHT ▷ NEAR LIMIT >	

4. AF MODE 설정

자동 초점 기능시 MODE를 설정합니다. (NORMAL, ZOOM, INTERVAL)
AF MODE는 FOCUS MODE 중 AUTO MODE에서만 작동하는 기능입니다.

FOCUS MENU	
FOCUS SPD	: USER
FOCUS MODE	: AUTO
NEAR LIMIT	: 1M
⇨ AF MODE	: NORMAL
BACK	
< NEAR / RIGHT ▷ AF MODE SEL >	

- NORMAL : 영상에 변화가 있는 경우 자동으로 AF 작동
- ZOOM : Zoom이 가변 되었을 경우에만 AF 작동
 - ZOOM 기능은 모델별로 다를 수 있습니다.
- INTERVAL : 정해진 시간 만큼 AF와 AF STOP 동작을 주기적으로 반복

WHITE BALANCE

WB MODE 설정에 따라 색상을 조절하는 기능입니다.

CAMERA MENU	
ZOOM MODE	▷
FOCUS MODE	▷
⇨ WHITE BAL.	▷
AUTO EXP.	▷
WDR MODE	▷
STABILIZER	▷
SPECIAL	▷
CAMERA RESET	
SAVE	BACK EXIT
< NEAR / RIGHT ▷ WB SETTING >	

1. WB MODE 설정

WB MODE 위치에서 [] 키를 동작시키면 왼쪽 화면으로 이동합니다. (AUTO, INDOOR, OUTDOOR, ONEPUSHAWB, MANUAL)

WHITE BALANCE MODE	
⇨ WB MODE	: AUTO
RED GAIN	: XXX
BLUE GAIN	: XXX
BACK	
< NEAR / RIGHT ▷ WB MODE SEL >	

WB MANUAL MODE 설정

색상 LEVEL을 조절 하는 기능입니다. (RED, BLUE : 00~ 20)
기본 값 : RED → 10 / BLUE → 10

WHITE BALANCE MODE	
⇨ WB MODE	: MANUAL
RED GAIN	: 10
BLUE GAIN	: 10
BACK	
< NEAR / RIGHT ▷ WB MODE SEL >	

AUTO EXPOSURE

카메라에 들어오는 빛의 양을 조절하여 선명한 화면을 볼 수 있도록 설정 하는 기능입니다.

CAMERA MENU	
ZOOM MODE	▷
FOCUS MODE	▷
WHITE BAL.	▷
⇨ AUTO EXP.	▷
WDR MODE	▷
STABILIZER	▷
SPECIAL	▷
CAMERA RESET	
SAVE	BACK EXIT
< NEAR / RIGHT ▷ AE SETTING >	

1. AE MODE 설정

AE MODE 위치에서 [] 키를 동작시키면 왼쪽 화면으로 이동합니다.

빛의 노출 정도에 따라 AUTO, MANUAL, IRIS, SHUTTER, BRIGHT의 메뉴를 선택하여 최적의 화면으로 만드는 기능입니다.

AUTO EXPO. MENU	
⇨ AE MODE	: AUTO
EXPOSURE	: 10
AGC LEVEL	: ON
SHUTTER	: AUTO
IRIS LEVEL	: AUTO
BRIGHT LEVEL	: AUTO
DSS LEVEL	: OFF
BACK	
< NEAR / RIGHT ▷ AE MODE SEL >	

설정 화면

AE MODE에서 MANUAL 설정시 변경 가능합니다.

AUTO EXPO. MENU	
⇨ AE MODE	: MANUAL
EXPOSURE	: XXXX
AGC LEVEL	: 00
SHUTTER	: 1/60
IRIS LEVEL	: 10
BRIGHT LEVEL	: XXXX
DSS LEVEL	: XX
BACK	
< NEAR / RIGHT > AE MODE SEL >	

- AGC LEVEL : 00~10 설정
- IRIS LEVEL : 00~13 설정
 - 1/8, 1/15, 1/30, 1/60(50), 1/120(100), 1/250, 1/700, 1/1000, 1/1600, 1/2500, 1/5000, 1/7000, 1/10000, 1/30000 sec

2. EXPO MODE 설정

노출 보정 설정 가능합니다.(00 ~ 20)

AUTO EXPO. MENU	
AE MODE	: AUTO
⇨ EXPOSURE	: 10
AGC LEVEL	: ON
SHUTTER	: AUTO
IRIS LEVEL	: AUTO
BRIGHT LEVEL	: AUTO
DSS LEVEL	: OFF
BACK	
< NEAR / RIGHT > EXPO SEL >	

3. AGC LEVEL 설정

AUTO EXPO. MENU	
AE MODE	: AUTO
EXPOSURE	: 10
⇨ AGC LEVEL	: ON
SHUTTER	: AUTO
IRIS LEVEL	: AUTO
BRIGHT LEVEL	: AUTO
DSS LEVEL	: OFF
BACK	
< NEAR / RIGHT > AGC LEVEL >	

- AE MODE에서 AUTO, IRIS, SHUTTER : AGC LEVEL ON/OFF 설정
- AE MODE에서 MANUAL : AGC LEVEL 값 설정 (0~10)

4. SHUTTER 설정

AE MODE에서 SHUTTER로 변경 한 후 SHUTTER SPEED 값을 지정합니다.

- 1/18, 1/15, 1/30, 1/60(50), 1/120(100), 1/250, 1/700, 1/1000, 1/1600, 1/2500, 1/5000, 1/7000, 1/10000, 1/30000 sec

AUTO EXPO. MENU	
AE MODE	: SHUTTER
EXPOSURE	: 10
AGC LEVEL	: ON
⇨ SHUTTER	: 1/60
IRIS LEVEL	: AUTO
BRIGHT LEVEL	: AUTO
DSS LEVEL	: XXX
BACK	
< NEAR / RIGHT > SHUTTER SEL >	

5. IRIS LEVEL 설정

AE MODE에서 IRIS로 변경 한 후 IRIS LEVEL 값을 설정합니다. (00 ~ 13)

AUTO EXPO. MENU	
AE MODE	: IRIS
EXPOSURE	: 10
AGC LEVEL	: ON
SHUTTER	: AUTO
⇨ IRIS LEVEL	: 10
BRIGHT LEVEL	: AUTO
DSS LEVEL	: OFF
BACK	
< NEAR / RIGHT > IRIS LEVEL >	

6. BRIGHT LEVEL 설정

AE MODE에서 BRIGHT 변경 한 후 Bright LEVEL을 변경합니다. (0 ~ 23)

AUTO EXPO. MENU	
AE MODE	: BRIGHT
EXPOSURE	: XXXX
AGC LEVEL	: XXX
SHUTTER	: AUTO
IRIS LEVEL	: XXXX
⇨ BRIGHT LEVEL	: 10
DSS LEVEL	: XXX
BACK	
< NEAR / RIGHT > BRIGHT LEVEL >	

7. DSS LEVEL 설정

디지털 셔터 속도 조절 기능입니다. (x2, x4, x8)

- AE MODE의 AUTO, IRIS 상태에서 DSS LEVEL을 설정할 수 있습니다.

AUTO EXPO. MENU	
AE MODE	: AUTO
EXPOSURE	: 10
AGC LEVEL	: ON
SHUTTER	: AUTO
IRIS LEVEL	: AUTO
BRIGHT LEVEL	: AUTO
⇨ DSS LEVEL	: OFF
BACK	
< NEAR / RIGHT ▷ DSS LEVEL >	

WDR MODE

WDR 추가 기능 설정합니다.

WDR(Wide Dynamic Range) : 역광 보정 기능

CAMERA MENU	
ZOOM MODE	▷
FOCUS MODE	▷
WHITE BAL.	▷
AUTO EXP.	▷
⇨ WDR MODE	▷
STABILIZER	▷
SPECIAL	▷
CAMERA RESET	
SAVE	BACK
EXIT	
< NEAR / RIGHT ▷ WDR MODE >	

1. WDR MODE 설정

WDR ON, OFF 설정합니다.

- WDR ON일 때 Analog 영상은 출력되지 않습니다.

WDR MODE MENU	
⇨ WDR MODE	: OFF
WDR LEVEL	: 02
ACE MODE	: OFF
BACK	
< NEAR / RIGHT ▷ WDR MODE >	

2. WDR LEVEL 설정

WDR LEVEL을 설정합니다.

WDR MODE MENU	
WDR MODE	: OFF
⇨ WDR LEVEL	: 02
ACE MODE	: OFF
BACK	
< NEAR / RIGHT ▷ WDR LEVEL >	

3. ACE MODE 설정

ACE ON, OFF 설정합니다.

- ACE ON시 DEFOG 기능 비활성화

WDR MODE MENU	
WDR MODE	: OFF
WDR LEVEL	: 02
⇨ ACE MODE	: OFF
BACK	
< NEAR / RIGHT ▷ ACE MODE >	

STABILIZER

디지털 영상 떨림 보정 모드를 선택합니다.

CAMERA MENU	
ZOOM MODE	▷
FOCUS MODE	▷
WHITE BAL.	▷
AUTO EXP.	▷
WDR MODE	▷
⇨ STABILIZER	▷
SPECIAL	▷
CAMERA RESET	
SAVE	BACK
EXIT	
< NEAR / RIGHT ▷ STABILIZER >	

설정 화면

1. STABILIZER MODE 설정
STABILIZER MODE를 설정합니다. (ON/OFF)

STABILIZER MODE

⇨ MODE

: OFF

RANGE

: ----

FILTER

: ----

AUTO C

: ----

BACK

< NEAR / RIGHT ▷ MODE ON/OFF >

2. RANGE 설정
영상 보정 범위를 설정합니다. (10%, 20%, 30%)

STABILIZER MODE

MODE

: ON

⇨ RANGE

: 10%

FILTER

: LOW

AUTO C

: OFF

BACK

< NEAR / RIGHT ▷ DIS RANGE >

3. FILTER 설정
DIS 기능 민감도를 설정합니다. (LOW, MIDDLE, HIGH)

STABILIZER MODE

MODE

: ON

RANGE

: 10%

⇨ FILTER

: LOW

AUTO C

: OFF

BACK

< NEAR / RIGHT ▷ DIS FILTER >

4. AUTO C 설정
자동 화면 중심 유지 모드를 설정합니다. (OFF, HALF, FULL)

STABILIZER MODE

MODE

: ON

RANGE

: 10%

FILTER

: LOW

⇨ AUTO C

: OFF

BACK

< NEAR / RIGHT ▷ DIS AUTOCEN >

SPECIAL

카메라의 특수한 기능을 추가적으로 설정 하는 기능입니다.

CAMERA MENU

ZOOM MODE

▷

FOCUS MODE

▷

WHITE BAL.

▷

AUTO EXP.

▷

WDR MODE

▷

STABILIZER

▷

⇨ SPECIAL

▷

CAMERA RESET

SAVE

BACK

EXIT

< NEAR / RIGHT ▷ SPECIAL >

1. SPECIAL SUB 설정

SPECIAL MENU

⇨ SPECIAL SUB ▷

APERTUREGAIN

: 05

BACK LIGHT

: OFF

DNR LEVEL

: AUTO

DEFOG

: OFF

FLICKERLESS

: OFF

BACK

< NEAR / RIGHT ▷ SUB MENU >

2. ICR MODE 설정

AUTO, DAY, NIGHT를 설정하여 IR 동작을 지정합니다.

SPECIAL MENU	
⇨ ICR MODE	: AUTO
ICR LEVEL	: 0.5 LUX
BLC X POS	: XX
BLC Y POS	: XX
BLC X SIZE	: XX
BLC Y SIZE	: XX
BACK	
< NEAR / RIGHT > ICR MODE >	

3. ICR LEVEL 설정

ICR 조도 값을 설정합니다.

SPECIAL MENU	
ICR MODE	: AUTO
⇨ ICR LEVEL	: 0.5 LUX
BLC X POS	: XX
BLC Y POS	: XX
BLC X SIZE	: XX
BLC Y SIZE	: XX
BACK	
< NEAR / RIGHT > ICR LEVEL >	

 ■ BLC 설정 시 BACK LIGHT를 ON으로 설정해야 합니다. (Camera Menu → Special Menu → BACK LIGHT : ON)

4. BLC X POS 설정

BLC X POSION 영역을 설정합니다.

SPECIAL MENU	
ICR MODE	: AUTO
ICR LEVEL	: 0.5 LUX
⇨ BLC X POS	: 06
BLC Y POS	: 05
BLC X SIZE	: 07
BLC Y SIZE	: 06
BACK	
< NEAR / RIGHT > X POSITION >	

- 기본 값 : 06
- 변화 값 : 0 ~ 19

5. BLC Y POS 설정

BLC Y POSION 영역을 설정합니다.

SPECIAL MENU	
ICR MODE	: AUTO
ICR LEVEL	: 0.5 LUX
BLC X POS	: 06
⇨ BLC Y POS	: 05
BLC X SIZE	: 07
BLC Y SIZE	: 06
BACK	
< NEAR / RIGHT > Y POSITION >	

- 기본 값 : 05
- 변화 값 : 0 ~ 18

6. BLC X SIZE 설정

BLC X SIZE 영역을 설정합니다.

SPECIAL MENU	
ICR MODE	: AUTO
ICR LEVEL	: 0.5 LUX
BLC X POS	: 06
BLC Y POS	: 05
⇨ BLC X SIZE	: 07
BLC Y SIZE	: 06
BACK	
< NEAR / RIGHT > X SIZE >	

- 기본 값 : 07
- 변화 값 : 0 ~ 19

7. BLC Y SIZE 설정

BLC Y SIZE 영역을 설정합니다.

SPECIAL MENU	
ICR MODE	: AUTO
ICR LEVEL	: 0.5 LUX
BLC X POS	: 06
BLC Y POS	: 05
BLC X SIZE	: 07
⇨ BLC Y SIZE	: 06
BACK	
< NEAR / RIGHT > Y SIZE >	

- 기본 값 : 06
- 변화 값 : 0 ~ 19

 ■ CAMERA 프로그램에 따라 기본값 및 변화값이 변경가능합니다.

8. APERTURE GAIN 설정

조리개 차이를 설정하는 기능입니다.

SPECIAL MENU	
SPECIAL SUB ▷	
⇨ APERTUREGAIN	: 0.5
BACK LIGHT	: OFF
DNR LEVEL	: AUTO
DEFOG	: OFF
FLICKERLESS	: OFF
BACK	
< NEAR / RIGHT ▷ APERTURE >	

9. BACK LIGHT 설정

어두운 환경을 밝게 선택하는 기능입니다.

SPECIAL MENU	
SPECIAL SUB ▷	
APERTUREGAIN	: 0.5
⇨ BACK LIGHT	: OFF
DNR LEVEL	: AUTO
DEFOG	: OFF
FLICKERLESS	: OFF
BACK	
< NEAR / RIGHT ▷ BACK LIGHT >	

10. DNR LEVEL 설정

DNR(Digital Noise Reduction) LEVEL은 어두운 환경에서 선명한 이미지로 표시하는 기능입니다.
(AUTO, LEV1, LEV2, LEV3, OFF)

SPECIAL MENU	
SPECIAL SUB ▷	
APERTUREGAIN	: 0.5
BACK LIGHT	: OFF
⇨ DNR LEVEL	: AUTO
DEFOG	: OFF
FLICKERLESS	: OFF
BACK	
< NEAR / RIGHT ▷ DNR LEVEL >	

11. DEFOG 설정

안개 제거 기능으로 ON / OFF를 설정하여 화면을 보다 더 선명하게 보정해주는 기능입니다.

SPECIAL MENU	
SPECIAL SUB ▷	
APERTUREGAIN	: 0.5
BACK LIGHT	: XXX
DNR LEVEL	: AUTO
⇨ DEFOG	: OFF
FLICKERLESS	: OFF
BACK	
< NEAR / RIGHT ▷ DEFOG MODE >	

12. FLICKERLESS 설정

전원주파수가 다른지역(50Hz/60Hz)에서 화면 떨림이 발생한 경우 선택하여 보정하는 기능입니다.
(AE MODE AUTO/ IRIS MODE에서 제어 가능)

SPECIAL MENU	
SPECIAL SUB ▷	
APERTUREGAIN	: 0.5
BACK LIGHT	: OFF
DNR LEVEL	: AUTO
DEFOG	: OFF
⇨ FLICKERLESS	: OFF
BACK	
< NEAR / RIGHT ▷ FLICKERLESS >	

CAMERA RESET

CAMERA MENU에 설정되어진 기능을 초기화 하는 기능입니다.

CAMERA MENU	
ZOOM MODE	▷
FOCUS MODE	▷
WHITE BAL.	▷
AUTO EXP.	▷
WDR MODE	▷
STABILIZER	▷
SPECIAL	▷
⇨ CAMERA RESET	
SAVE	BACK
EXIT	
< NEAR / RIGHT ▷ RESET >	

Clear 설정

MOTION 기능에 설정되어 있는 데이터를 삭제(초기화)하는 기능입니다.

이동 :  or  선택 :  선택완료 : 

MAIN MENU	
MOTION	▷
DOME	▷
CAMERA	▷
⇨ CLEAR	▷
FACTORY SET	
PTZ RESET	
EXIT	
< NEAR / RIGHT ▷ CLEAR >	

CLEAR MENU			
PRESET	: <X>	ALARM	: X
TOUR	: X	PRIVACY	: X
GROUP	: X	HOME POS.	: X
SCAN	: X	ZERO POS.	: X
PATTERN	: X	MOTION ALL	: X
AREA	: X		
< ON ▷ TELE BACK ▷ NEAR >			
< OFF ▷ WIDE EXIT ▷ FAR >			

Factory set

DOME, CAMERA, MOTION 세팅 전체 CLEAR 됩니다.

MAIN MENU	
MOTION	▷
DOME	▷
CAMERA	▷
CLEAR	▷
⇨ FACTORY SET	
PTZ RESET	
EXIT	
< NEAR / RIGHT ▷ FACTORYSET >	

 Factory Set 설정시 공장 출하 초기값으로 되돌아갑니다. 본 기능 실행시 현재의 설정값은 지워지게 되므로 주의하시기 바랍니다.

PTZ Reset

카메라 리셋 기능으로 카메라 ID, 프로토콜, 통신속도 등을 변경하기위해 디스위치 설정을 바꾼 경우 카메라를 다시 시작해야 하는데, 이때 사용하면 편리한 기능입니다.

MAIN MENU	
MOTION	▷
DOME	▷
CAMERA	▷
CLEAR	▷
FACTORY SET	
⇨ PTZ RESET	
EXIT	
< NEAR / RIGHT ▷ RESET >	

그 외 빠른 실행 단축키

- ICR AUTO (ON) = 240 + F1 Long Preset
- ICR DAY (ON) = 241 + F1 Long Preset
- ICR NIGHT (ON) = 242 + F1 Long Preset
- WIPER (ON / OFF) = 244 + F1 Long Preset
- HEATER (ON / OFF) = 245 + F1 Long Preset
- IR ZOOM (AUTO / MANUAL) = 248 + F1 Long Preset
- LIGHT (ON / OFF) = 252 + F1 Long Preset
- INFO (ON / OFF) = 255 + F1 Long Preset
- IR ZOOM 단축키는 설정 후 사용 가능합니다.
DOME SUB MENU → 1) IR CONT. TYPE → MANUAL
2) ICR NIGHT → ON

기능키 :  

움직임 검출

1. 설정 메뉴에서 <움직임 검출> 탭을 선택하세요.
2. 영상 내 이미지를 드래그하여 사각형의 감지 영역을 설정하세요.
 - ROI#1~4 탭 : 움직임 감지 영역을 4개까지 구분하여 설정할 수 있습니다. (예: ROI#1의 영역에서 움직임을 감지하고 ROI#2 영역에서 움직임을 감지한 경우에만 특정 이벤트 발생)
 - 전체 체움 : 모두 선택
 - 전체 지움 : 선택 영역 해제
 - 반전 : 선택한 영역 반전
 - 사용 : 활성화하려면 체크합니다.
 - 민감도 : 마우스로 드래그하여 민감도를 설정합니다. 설정 값이 클수록 민감합니다.
 - 임계점 : 전체 영역에 대해 움직이는 영역의 부분이 선택 값에 해당될 때 움직임을 감지합니다.
3. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.
4. 설정 완료 후 웹 모니터링 페이지에서 <Info> 버튼을 클릭하면 움직임을 검출한 경우에 영상 상단 바에 붉은 색 마크를 표시합니다.



ROI Encoding 설정하기

ROI Encoding

카메라 입력 영상에서 원하는 부분을 관심 영역으로 설정하고 설정된 영역의 인식 정도를 선택할 수 있습니다.

1. 설정 메뉴에서 <ROI Encoding> 탭을 선택하세요.
2. <H.264 ROI Encoding>를 설정하세요.
 - 사용 : 활성화하려면 체크합니다.
 - ROI Enable : ROI 영역을 선택합니다.
 - 민감도 : 마우스로 드래그하여 민감도를 설정합니다. 설정 값이 클수록 민감합니다.
 - RESET : 설정된 영역에 대해서 모두 해제합니다.
3. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.

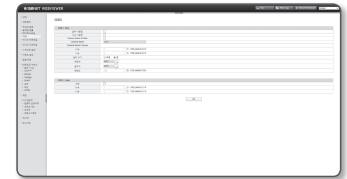


OSD 설정하기

OSD

화면에 표시될 항목을 설정할 수 있습니다.

1. 설정 메뉴에서 <OSD> 탭을 선택하세요.
2. <OSD::Text>를 설정하세요.
 - 날짜 사용함 / 시간 사용함 / Camera Name Enable : 각 항목의 해당 텍스트를 WISENET WEBVIEWER 영상에 보이게 하려면 체크 박스에 체크합니다. (WISENET WEBVIEWER OSD(On Screen Display) 기능으로 Camera Module OSD 기능과는 다른 기능입니다.)
 - Camera Name : OSD 상에 나타나는 이름을 입력합니다.
 - X 축 : OSD 글자의 위치를 조정합니다. (X 축 방향)
 - Y 축 : OSD 글자의 위치를 조정합니다. (Y 축 방향)
 - 글자 크기 : OSD 글자의 크기를 조정합니다.
 - 바탕색 : 글자 배경색을 설정합니다.
 - 글자색 : 글자색을 설정합니다.
 - 투명도 : 투명도를 설정합니다.
3. <OSD::Logo>를 설정하세요.
 - 사용 : 활성화하려면 체크합니다.
 - X 축 : OSD 로고의 위치를 조정합니다. (X 축 방향)
 - Y 축 : OSD 로고의 위치를 조정합니다. (Y 축 방향)
4. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



비디오 프로파일 설정하기

비디오 프로파일

촬영 상황에 따라 다양한 프로파일을 적용하도록 프로파일 설정을 추가/변경할 수 있습니다.

1. 설정 메뉴에서 <비디오 프로파일> 탭을 선택하세요.

2. <Preview>를 설정하세요.

- Streams : 선택된 스트림의 영상을 볼 수 있습니다.

3. <비디오 설정>을 설정하세요.

각각의 스트림에 대해 별도의 설정 값을 지정할 수 있습니다.

- Proprietary Stream Port : 영상 및 음성 데이터 전송을 위한 포트

- 압축방식 : 데이터 압축 방식 (H.264 / MPEG4 / MJPEG) 을 선택합니다.

- 해상도 : 해상도를 선택합니다.

- 비트레이트 종류

- 고정압축(CBR) : 단위는 kbps 입니다. (권장: 1080p -> 4000~6000, 720p -> 2000~3000, D1 -> 1000~1500, CIF -> 500~750)

- 가변압축(VBR) : 1~6 (1: 최고 화질)

- 프레임수 : 전송할 프레임 수 (기본값: 30, 1~30)

- 그룹사이즈 : I 프레임 생성 주기 (기본값: 60)

4. <Expert Video Setting>을 설정하세요.

- H.264 Reference Frames (Skipping Modes) : 4X 설정 후 NVC에서 저장된 영상을 4X로 재생하면 시스템 리소스를 적게 사용하게 됩니다.

- Capture Mode : 모니터 해상도나 NVC의 분할 화면 비율이 SD(Standard Definition) 영상 비율 (4:3) 기준인 경우, HD 영상 (16:9)을 SD 영상 비율(4:3)로 변환되어져야 합니다.

- Squeeze: 수평 방향으로 좁게 스트레칭하여 4:3 비율을 만듭니다.

- Crop: 비율은 유지한 채로 좌우를 잘라서 표현합니다.

- Profile : 기본값인 baseline의 영상 딜레이 (인코딩 - 디코딩) 가 가장 적습니다.

- 압축률, 시스템 부하: baseline < main < high
모니터링 NVC가 해당 profile을 지원하는지 확인해야 합니다.
high profile은 base profile보다 20% 정도의 대역폭이 줄어드는 장점이 있습니다.

- Entropy Coding

- 압축률: CAVLC < CABAC

- 시스템 부하: CAVLC < CABAC

- Jumbo Frame : 특징값을 초과하는 I 프레임이나 P 프레임을 버리거나 재처리하는 설정입니다.

- I Thr: I 프레임 임계값, P Thr: P 프레임 임계값

5. <JPEG 저장>을 설정하세요.

- 사용 : JPEG 이미지를 캡처하도록 설정합니다. (특정 프로그램 개발 시 사용됩니다.)

- 해상도 : 해상도 설정

- 압축품질 : 1 / 2 / 3 / 4 / 5 / 6 (최고 화질: 1)

6. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



- 서버형 제품의 해상도 D1 설정에서 카메라의 출력 형식에 의해 모니터링 영상에 blank가 나타나는 경우, 해상도를 4CIF로 설정하고 Video Source / XY Offset 에서 값을 조정합니다.

오디오 프로파일 설정하기

오디오 프로파일

카메라와 연결된 오디오의 입, 출력 값을 설정할 수 있습니다.

1. 설정 메뉴에서 <오디오 프로파일> 탭을 선택하세요.

2. <오디오 옵션 :: Input>을 설정하세요.

- Input Type : line (또는 line / mic. ; 마이크 내장형 모델)
- 오디오 코덱 : G.711-u / G.711-a / G.726 (음질: G.711 > G.726, 재생 호환성: G.711 < G.726)
- 샘플링 주기 : 8kHz / 32kHz (또는 8kHz ; MR904 고정값)
- 볼륨 : 1~100
- Noise Reduction : 노이즈 제거 기능을 사용하려면 체크합니다.

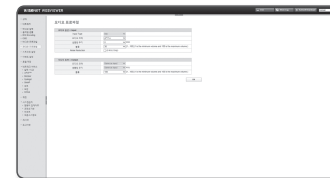
3. <오디오 옵션 :: Output>을 설정하세요.

- 오디오 코덱 : Input과 동일합니다.
- 샘플링 주기 : Input과 동일합니다.
- 볼륨 : 1~100

4. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



- 모니터링 프로그램을 사용하여 오디오를 재생하는 경우 해당 프로그램은 WISNET WEBVIEWER의 codec을 지원해야 합니다.



스트리밍 설정하기

스트리밍 설정

1. 설정 메뉴에서 <스트리밍 설정> 탭을 선택하세요.

2. <Proprietary Streaming Setting>을 설정하세요.

- Proprietary TCP Port : Proprietary 프로토콜로 데이터를 전송하는 경우 사용하는 포트 (Video Profile / Video Setting / Proprietary Stream Port 와 연동됩니다.)
- Connection Lists : 현재 접속 중인 모니터링 기기의 IP 주소와 포트 정보

3. <RTP/RTSP Streaming Setting>을 설정하세요.

- RTSP Port : RTSP 프로토콜 전송에 사용할 포트
- RTP/RTSP Connection Type : 네트워크 상에 multicast를 지원하는 네트워크 장비가 있을 경우 효율적인 대역폭 사용을 위해 "multicast_udp" 로 설정할 수 있습니다. multicast로 설정하는 경우 아래의 Multicast Setting 에서 추가 설정이 필요합니다.



설정 화면

- RTSP URI (Uniform Resource Identifier) : RTSP 재생을 위해 PC 모니터링 프로그램에서 사용하는 경로입니다.
기본 상태에서의 접속 경로는 아래와 같습니다.

- 1st Stream > rtsp://192.168.1.2:554/AVStream1_1
- 2nd Stream > rtsp://192.168.1.2:554/AVStream1_2
- 3rd Stream > rtsp://192.168.1.2:554/AVStream1_3

- Connection Lists : 현재 접속 중인 모니터링 기기의 IP 주소와 포트 정보

4. <Multicast Setting>을 설정하세요.

- 비디오 Address : 비디오 데이터 전송에 사용할 IP 주소
- 비디오 포트 : 비디오 데이터 전송에 사용할 포트
- 비디오 TTL : 비디오 데이터 전송 시 몇 개의 라우터를 거칠 수 있는지 설정
- 오디오 Address : 오디오 데이터 전송에 사용할 IP 주소
- 오디오 포트 : 오디오 데이터 전송에 사용할 포트
- 오디오 TTL : 오디오 데이터 전송 시 몇 개의 라우터를 거칠 수 있는지 설정

5. <Advanced Setting>을 설정하세요.

- Use RTSP Authentication : 인증 과정이 필요한 경우 체크합니다.
- Use RTCP Timeout : 타임 아웃 설정이 필요한 경우 체크합니다.
- The other protocols : 지원하는 다른 프로토콜을 표시합니다.

6. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.

이벤트 설정하기

이벤트 설정

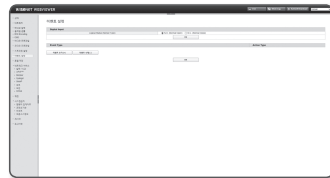
알람 입력 방식과 발생한 이벤트 동작을 설정할 수 있습니다.

1. 설정 메뉴에서 <이벤트 설정> 탭을 선택하세요.

2. <Digital Input>을 설정하세요.

- Logical Status (Sensor Type) : 연결되어 있는 장치의 평상 시 전기적 신호 상태에 따라 (단함 또는 열림) 설정합니다.
 - N.O. (Normal Open) 연결되어 있는 장치의 평상 시 전기적 신호가 '열림' 상태일 때 설정합니다.
 - N.C. (Normal Close) 연결되어 있는 장치의 평상 시 전기적 신호가 '단함' 상태일 때 설정합니다.

3. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



4. <Event Type>을 설정하세요.

이벤트 항목을 추가하려면 <이벤트 추가 (+)> 버튼을 클릭하세요.

이벤트 종류

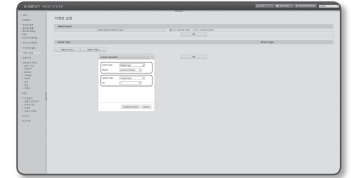
모델별로 기능이 다를 수 있습니다.

- Digital Input : Digital Input (DI)이 감지 되었을 때 이벤트를 발생립니다. 아래와 같이 감지 상태를 세밀하게 조정할 수 있습니다.

- active to inactive : DI가 감지 상태에서 감지가 풀린 상태로 바뀔 때 이벤트 발생
- inactive to active : DI가 감지가 풀린 상태에서 감지 상태로 바뀔 때 이벤트 발생
- active level : DI가 감지 상태가 유지될 때 이벤트 유지.
- inactive level : DI가 감지가 풀린 상태가 유지될 때 이벤트 유지.
- Motion : Motion 이 감지 되었을 때 이벤트를 발생립니다.
- Timer : 시간 주기적으로 이벤트를 발생합니다. (단위: 초)

Action 종류

- Preset Move : PTZ 카메라가 연결되어 있을때, Preset Move 명령을 PTZ 카메라에 전달합니다.
- Digital Output : 릴레이 출력을 의미합니다. 사용자가 정의한 시간만큼 Digital Output 신호를 내보냅니다. 아래와 같이 출력 상태를 조정할 수 있습니다.
 - close to open : Digital Output 신호를 '열림' 상태로 내보냅니다.
 - open to close : Digital Output 신호를 '단함' 상태로 내보냅니다.
- TDN : (True Day&Night) 일부 IP 카메라 모델에만 적용되어 있습니다. 영상의 색상을 아래와 같이 조정할 수 있습니다.
 - bw : 영상을 흑백으로 설정합니다.
 - color : 영상을 칼라로 설정합니다.
- 5. 설정한 이벤트를 생성하려면 <Create an event> 버튼을 클릭하세요.
설정을 취소하려면 <Cancel> 버튼을 클릭하세요.
- 6. 설정한 이벤트 항목을 제거하려면 <이벤트 삭제 (-)> 버튼을 클릭하세요.
- 7. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



참고 시나리오

1. 비상벨이 눌렀을 때, 비상벨이 눌린 위치로 PTZ 카메라의 영상을 이동.
 - WISENET WEBVIEWER 의 Digital Input 에 비상벨을 연결.
 - WISENET WEBVIEWER 의 웹 설정 페이지 > Video Source > Camera Control 에서 PTZ 를 제어하여 Preset 1 번을 비상벨의 위치로 이동한 뒤, "Set" 버튼 클릭
 - "Add Event (+)" 를 누르고, 아래와 같이 설정.
 - 1) Event Type : Digital Input
 - 2) Status : inactive to active
 - 3) Action Type : Preset Move
 - 4) No : 1

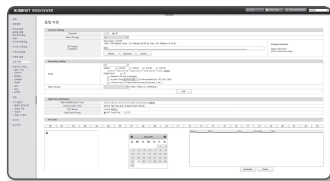
2. Digital Input 에 따라 TDN (True Day&Night) 동작.

- WISENET WEBVIEWER 의 Digital Input 에 밤과 낮에 따라 릴레이 출력 신호 제어가 가능한 장비를 연결.
- “Add Event (+)” 버튼을 누르고, 아래와 같이 설정. active 상태일때는 TDN “bw” 를 유지하고, inactive 상태일때는 TDN “color” 로 돌아감.
 - 1) Event Type : Digital Input
 - 2) Status : active level
 - 3) Action Type : TDN
 - 4) No : bw

저장 장치 설정하기

로컬 저장

1. 설정 메뉴에서 <로컬 저장> 탭을 선택하세요.
2. <Common Setting>을 설정하세요.
 - Overwrite : SD 카드의 용량이 가득 찰 경우 오래된 데이터를 지우고 새로운 데이터를 저장합니다.
 - Select Storage : 저장할 저장장치를 선택합니다. 기본값은 sd로 고정되어 있습니다.
 - SD Volume (available) : 메모리 카드의 사용가능 용량과 전체 용량을 확인하세요.
 - Mount : 저장장치를 사용합니다.
 - Unmount : 저장장치 사용을 해제합니다.
 - Format : 저장장치의 데이터를 삭제합니다.
3. <Recording Setting>을 설정하세요.
 - Mode : 저장할 녹화 타입을 설정합니다.
 - continuous : 항상 일정한 프레임 레이트로 녹화하는 방식을 설정합니다.
 - event : 특정 이벤트 발생시 녹화하는 방식을 설정합니다.
 - Select Stream : 녹화 타입 종류가 <continuous> 또는 <event>일 경우 스트림을 선택합니다.
4. <Date/Time Information>을 확인하세요.
5. File Lists에서 sd카드에 저장된 영상을 다운로드하거나 삭제할 수 있습니다.

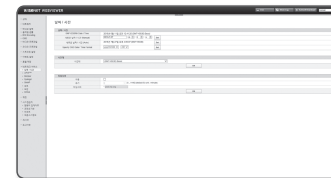


네트워크 서비스 설정하기

날짜 / 시간

카메라에 적용될 시간을 설정할 수 있습니다.

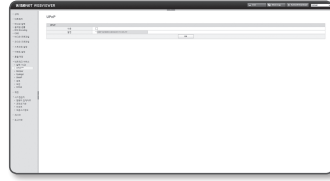
1. 설정 메뉴에서 <네트워크 서비스> 탭을 선택하세요.
2. <날짜 / 시간>을 클릭하세요.
3. <날짜 / 시간>을 설정하세요.
 - <Set> 버튼을 클릭하여 적용하세요.
 - Date / Time : 현재 시간을 표시합니다.
 - 새로운 날짜 / 시간 (Manual) : 시간 정보를 수동으로 입력하여 설정합니다. Set 버튼을 클릭하여 적용합니다.
 - 새로운 날짜 / 시간 (Auto) : PC의 시간 정보를 이용하여 자동으로 시간을 설정합니다. Set 버튼을 클릭하여 적용합니다.
 - Specify OSD Date / Time Format : 날짜 및 시간 표현 형식을 설정합니다.
4. <시간대>를 설정하세요.
 - 시간대 : 지역을 설정합니다.
5. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.
6. <타임서버>를 설정하세요.
 - 타임서버로부터 받아 온 시간 정보를 사용하여 시간 동기화 작업을 수행할 수 있습니다.
 - 사용 : 기능을 활성화하려면 체크합니다.
 - 주기 : Time Server에 시간 정보를 요청하는 주기를 설정합니다. (분)
 - 타임서버 : 동기화하려는 타임서버의 IP 주소나 호스트이름을 입력합니다.
7. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



UPnP

PC가 UPnP 기기 검색을 지원하면 검색 항목을 클릭하여 웹 브라우저로 바로 접속할 수 있습니다.

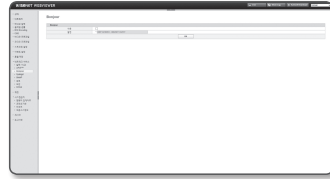
1. 설정 메뉴에서 <네트워크 서비스> 탭을 선택하세요.
2. <UPnP>를 클릭하세요.
3. <UPnP>를 설정하세요.
 - 사용 : 기능을 활성화하려면 체크합니다.
 - 별명 : MAC 주소에 의해 자동 생성됩니다. 변경하려면 <사용>을 체크합니다.
4. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



Bonjour

PC가 Bonjour 기기 검색을 지원하면 검색 항목을 클릭하여 웹 브라우저로 바로 접속할 수 있습니다.

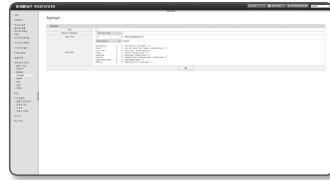
1. 설정 메뉴에서 <네트워크 서비스> 탭을 선택하세요.
2. <Bonjour>를 클릭하세요.
3. <Bonjour>를 설정하세요.
 - 사용 : 기능을 활성화하려면 체크합니다.
 - 별명 : MAC 주소에 의해 자동 생성됩니다. 변경하려면 <사용>을 체크합니다.
4. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



Syslogd

특정 PC에 제품 동작 중에 발생하는 Log 파일을 전송할 수 있습니다.

1. 설정 메뉴에서 <네트워크 서비스> 탭을 선택하세요.
2. <Syslogd>를 클릭하세요.
3. <Syslogd>를 설정하세요.
 - 사용 : 기능을 활성화하려면 체크합니다.
 - Server IP Address : Log 파일을 전송 받는 PC의 IP 주소를 입력합니다.
 - UDP Port : Log 파일을 전송하기 위한 포트 번호
 - Log Level : 전송하는 Log의 종류를 지정하여 전송할 수 있습니다.



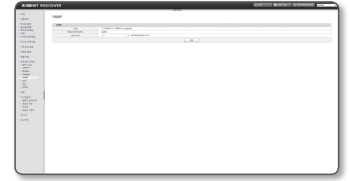
■ PC에 설치하는 프로그램은 제품 공급처에 문의하세요.

4. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.

SNMP

SNMP 프로토콜을 통해 시스템이나 네트워크 관리자가 원격에서 네트워크 장비를 모니터링하고 환경 설정 등의 운영을 할 수 있습니다.

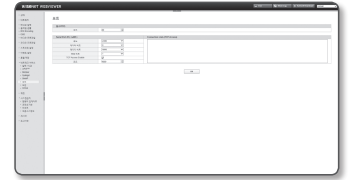
1. 설정 메뉴에서 <네트워크 서비스> 탭을 선택하세요.
2. <SNMP>를 클릭하세요.
3. <SNMP>를 설정하세요.
 - 사용 : 기능을 활성화하려면 체크합니다.
 - Read community : SNMP 정보에 접근하기 위한 읽기 전용 커뮤니티 이름입니다. 작동방식은 public 입니다. (고정값)
 - UDP Port : 사용하는 포트 번호를 설정합니다.
4. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



포트

통신에 필요한 포트를 설정할 수 있습니다.

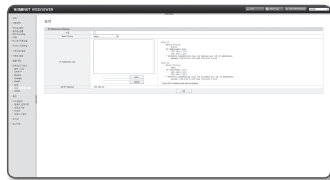
1. 설정 메뉴에서 <네트워크 서비스> 탭을 선택하세요.
2. <포트>를 클릭하세요.
3. <웹 (HTTP)>를 설정하세요.
 - 포트 : Web 포트 번호를 설정합니다.
4. <Serial Port #1 (rs485)>를 설정하세요.
PTZ 제어 등의 외부 데이터 통신을 위한 설정 항목입니다.
(RS485, RS422 등)
PTZ 카메라(또는 리시버) 연결시 ID 및 Protocol 설정은 <비디오 입력> 탭에서 지정합니다.
 - 속도, 데이터 비트, 패리티 비트, Stop 비트 : 통신하려고 하는 기기 간에 맞추어야 하는 설정 값들입니다.
 - TCP Access Enable : TCP 접속 기능을 활성화하려면 체크합니다.
 - 포트 : Serial 통신 포트 번호를 설정합니다.
5. <Connection Lists (TCP Access)>를 확인하세요.
연결되어 있는 기기의 IP 주소를 표시합니다.
6. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



보안

특정 IP에 대해서 접속을 허가 또는 거부 하도록 IP 목록을 작성할 수 있습니다.

1. 설정 메뉴에서 <네트워크 서비스> 탭을 선택하세요.
2. <보안>을 클릭하세요.
3. <IP Addresses Filtering>을 설정하세요.
 - 사용 : 기능을 활성화하려면 체크합니다.
 - Basic Policy : allow(허용) / deny(거부) 중 하나를 선택합니다.
 - IP Addresses List : Add와 Delete 버튼을 이용하여 필터링할 IP 주소 리스트를 만듭니다.
 - My IP Address : 현재 접속 중인 PC의 IP 주소 정보
4. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



DDNS

Dynamic Domain Name Service의 약자로 카메라에 접속하기 위해 사용되는 IP 주소를 일반적인 호스트 명으로 변환하여 사용자가 기억하기 쉽도록 설정할 수 있습니다.

1. 설정 메뉴에서 <네트워크 서비스> 탭을 선택하세요.
2. <DDNS>를 클릭하세요.
3. <IPv4 DDNS>를 설정하세요.
 - 사용 : 기능을 활성화하려면 체크합니다.
 - 서비스 선택 : 사용하려는 서비스를 선택합니다.
4. 설정이 끝나면 <OK> 버튼을 눌러 설정 값을 적용하세요.



DDNS server 홈페이지에서 회원 가입시 등록한 정보를 기입합니다.

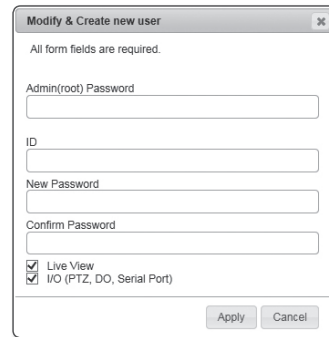


계정 설정하기

계정

관리자 비밀번호를 설정하거나 사용자 추가 및 등록된 사용자 정보를 편집할 수 있습니다 .

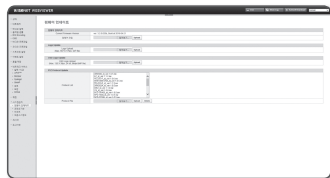
1. 설정 메뉴에서 <계정> 탭을 선택하세요.
2. 사용자 계정을 추가하려면 <Add User> 버튼을 클릭하세요. <Modify & Create new user> 창이 생깁니다.
 - Admin(root) Password : 관리자 계정의 비밀번호를 입력합니다.
 - ID : 추가할 아이디를 입력합니다.
 - New Password / Confirm Password : 추가하는 ID의 비밀번호를 입력합니다.
 - Live View : 실시간 웹 모니터링 권한을 의미합니다. 활성화하려면 체크합니다.
 - I/O (PTZ, DO, Serial Port) : 입출력에 관련된 권한을 의미합니다. 활성화하려면 체크합니다.
3. <Apply> 버튼을 클릭하면 설정을 적용합니다. <Cancel> 버튼을 클릭하면 취소됩니다.
4. <Modify> 버튼을 클릭하면 등록된 계정 정보를 변경할 수 있습니다.
5. 게스트 접속을 허용하려면 <Guest Login Enable>을 체크하세요. <Set> 버튼을 클릭하면 설정을 적용합니다.
6. <최대 접속자 수>를 확인하세요. 최대 허용 접속자는 20명입니다. (고정값)



펌웨어 업데이트

현재 카메라 펌웨어 버전을 확인하고 시스템 업데이트를 실행할 수 있습니다.

1. 설정 메뉴에서 <시스템 관리> 탭을 선택하세요.
2. <펌웨어 업데이트>를 클릭하세요.
3. 원하는 설정 항목을 선택하세요.
 - 펌웨어 업데이트
 - Current Firmware Version : 현재 펌웨어 버전을 표시합니다.
 - 펌웨어 파일 : “찾아보기...” 버튼을 클릭하여 업데이트하려고 하는 펌웨어 파일을 선택하고 “Upload” 버튼을 클릭하면 업데이트를 실행합니다. 업데이트 중에는 반드시 전원 공급이 유지되어야 합니다. (MARS2 계열: 3~5분, SATURN/TITAN 계열: 10분)
펌웨어 업데이트 후에도 네트워크 설정은 유지됩니다. (비디오 설정은 초기화 됩니다.)
 - Logo Update : “찾아보기...” 버튼을 클릭하여 업데이트하려고 하는 파일을 선택하고 “Upload” 버튼을 클릭하면 업데이트를 실행합니다.
 - OSD Logo Update : “찾아보기...” 버튼을 클릭하여 업데이트하려고 하는 파일을 선택하고 “Upload” 버튼을 클릭하면 업데이트를 실행합니다.
 - PTZ Protocol Update (서버형 제품에서 지원)
 - Protocol List : 현재 사용 가능한 제어 프로토콜을 표시합니다.
 - Protocol File : “찾아보기...” 버튼을 클릭하여 업데이트하려고 하는 파일을 선택하고 “Upload” 버튼을 클릭하면 업데이트를 실행합니다.
 - Delete 버튼 : 등록되어 있는 프로토콜과 이름이 같은 프로토콜을 업로드할 경우, 등록되어 있는 것을 삭제할 때 사용합니다.

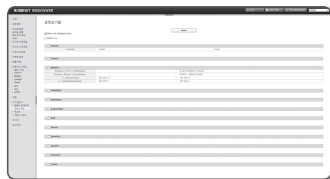


■ 새로운 프로토콜을 업로드한 경우 “비디오 입력 / Camera Control” 항목에서 업로드한 프로토콜을 선택하고 Set 버튼을 클릭하여 해당 프로토콜을 적용합니다.

공장초기화

시스템을 공장초기화 상태로 리셋합니다.

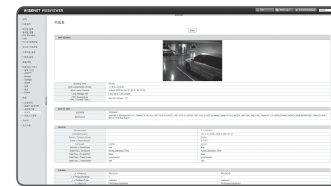
1. 설정 메뉴에서 <시스템 관리> 탭을 선택하세요.
2. <공장초기화>를 클릭하세요.
3. 초기화할 항목을 선택한 후 <Reset> 버튼을 클릭하세요.
변경된 설정 값들이 초기화됩니다.
 - Show only changed values : 변경된 설정 값들만 나오게 하려면 체크합니다. (초기값)
 - Select All : 초기화하려는 설정 그룹을 모두 선택합니다.



리포트

현재 설정 값을 보여 줍니다. 인쇄하거나 PDF 파일을 만들 수 있습니다. PDF 파일로 출력하려면 PDF 출력용 프린터 항목이 있어야 합니다.

1. 설정 메뉴에서 <시스템 관리> 탭을 선택하세요.
2. <리포트>를 클릭하세요.
3. <Print> 버튼을 클릭하세요.
리포트 페이지를 출력합니다.



오픈소스 정보

오픈소스 라이선스 정보를 확인할 수 있습니다.

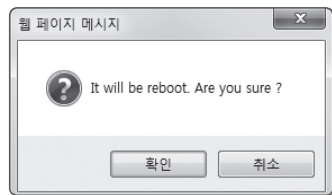
1. 설정 메뉴에서 <시스템 관리> 탭을 선택하세요.
2. <오픈소스정보>를 클릭하세요.



카메라 재시작 및 로그아웃 하기

재시작

1. 설정 메뉴에서 <재시작> 탭을 선택하세요.
2. 제품을 리부팅할 경우에 <Reboot> 항목을 클릭하세요.
3. 리부팅 확인 메시지가 나타납니다.
4. <확인> 버튼을 클릭하세요.



로그아웃

1. 설정 메뉴에서 <로그아웃> 탭을 선택하세요.
2. 웹 서버 접속 초기화면으로 이동합니다.

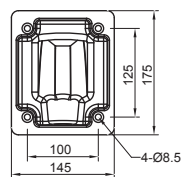
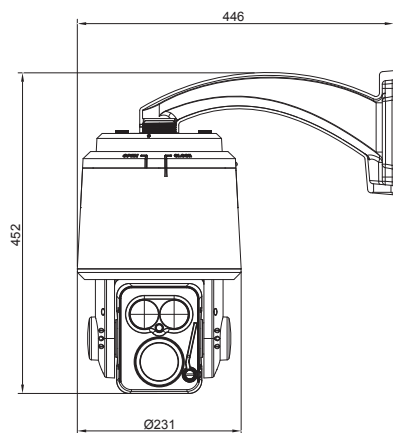
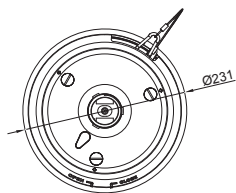
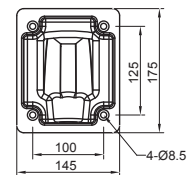
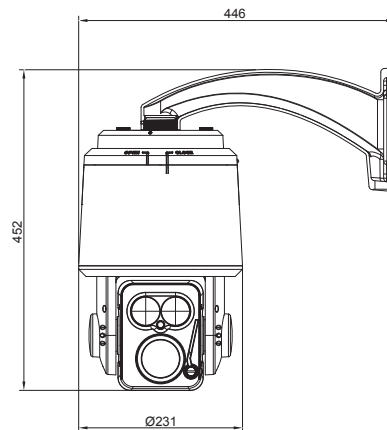
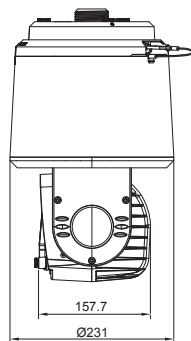
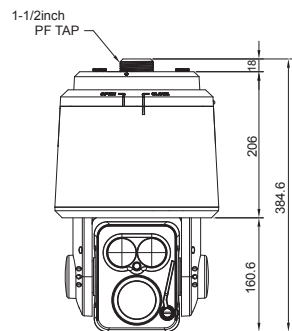
사양

항 목		내용	
		x30	x36
영상	촬상 소자	1/2" Sony CMOS Sensor	
	총 화소수	1952(H) x 1241(V) 2.42M Pixels	
	유효 화소수	1937(H) x 1097(V) 2.12M Pixels	
	주사 방식	Progressive Scan	
	Resolution	Digital : 1080p/60(50)fps, 1080p/30(25)fps, 720p/60(50)fps, 720p/30(25)fps	
	최저조도	Color(1/30s) : 0.15 lux , BW(1/30s) : 0.01 lux Color DSS(1/7.5s) : 0.0375 lux , BW DSS(1/7.5s) : 0.002 lux	
	S / N 비	more than 50dB (AGC off)	
	영상 출력	HD-SDI, CVBS	
렌즈	초점거리	f = 6.0 mm ~ 180.0 mm	f = 6.0 mm ~ 216.0 mm
	줌 비율	Optical x30, Digital x32 Zoom (허용오차 15% 적용, TTA 미진행)	Optical x36, Digital x32 Zoom
	구경비	F1.5 (wide) ~ F4.3 (tele)	F1.5 (wide) ~ F4.8 (tele)
	화각	H : 61.2°(Wide) ~ 2.77°(Tele), V : 35.7°(Wide) ~ 1.56°(Tele), D : 68.6°(Wide) ~ 3.16°(Tele)	
	렌즈 타입	x30 Day & Night Zoom Lens	x36 Day & Night Zoom Lens
팬/틸트	팬	360°Continuous Pan, 0.1° ~ 120°/sec (proportional to zoom)	
	팬 속도	250°/sec, ± 0.1° Accuracy	
	틸트	-8°(352°) ~ 188° movement, 0.8°~80°/sec (proportional to zoom)	
	틸트 속도	250°/sec, ± 0.05° Accuracy	
	프리셋	255 points, less than 0.1° accuracy	
카메라 기능	Camera Title	ID / Title / Zoom Ratio / System Message	
	Day & Night	Auto / Day / Night / Ext-in	
	WDR/BLC	Off / WDR / BLC / HLC	
	ACE	Off / Low / Middle / High	
	DNR	Auto / Off / Low / Middle / High	
	Defog	Off / On(Auto / Manual)	
	Digital Image Stabilizer	Off / On	
	Privacy Mask	Off / On (24 positions)	

항 목		내용	
		x30	x36
카메라 기능	Digital Slow Shutter	Off /x2 /x4 (/ x8 : 60 or 50fps mode only)	
	Gain Control	Off / On	
	White Balance	Auto / One Push / Manual / Indoor / Outdoor	
	Shutter Speed	1/30(25) ~ 1/30,000 sec	
	E.Zoom	Off / x2 ~ x32	
	Digital Flip	Off / H / V / H&V	
	Digital I/O	8 alarm / 2 relay out	
	Remote Control Interface	RS-422, 485	
	Protocol	Pelco-D / Pelco- P / WONWOO	
네트워크	이더넷	RJ-45 (10/100BASE-T)	
	비디오 압축 방식	H.264 (MPEG-4 Part 10/AVC), H.265, Motion JPEG	
	해상도	1080p, 720p, 1024x576, 640x360, D1, 4CIF, VGA	
	동시 전송 능력	최대 3종의 스트림 동시 전송	
	오디오 압축 방식	G.711 μ-law	
	오디오 통신	양방향	
네트워크	IP	IPv4, IPv6	
	프로토콜	TCP, IP, HTTP, DHCP, FTP, DNS, DDNS, NTP, ICMP, SNMP, SMTP, UPnP, RTP, RTSP, ONVIF	
	Edge Storage	Micro SD	
	S/W 응용 인터페이스	지원	
	웹페이지 언어	영어, 한국어	
동작 환경	동작 온/습도	-40°C ~ +60°C / 90% RH 이하 * 전원 Off → On 시킬 때는 반드시 -30°C 이상이어야 함.	
	보관 온/습도	-10°C ~ +50°C / 90% RH 이하	
	방진/방수	IP66	
전원	사용전원/소비전류	AC21~26V 60Hz / 50Hz(Power adaptor not included)	
	소비 전력	Operation(5A) / Max 6A	
외관	재질	알루미늄	
	외형 치수 (ØxH)	Ø231 x H385 mm	
	무게	6.8Kg	

외관도

단위: mm (인치)



문제 해결하기

문제	해결
브라우저로 카메라에 접속되지 않아요.	• 카메라의 네트워크 설정값들이 올바르게 되어 있는지 확인하세요. • 네트워크 케이블은 연결이 올바르게 되어 있는지 확인하세요. • DHCP로 연결하는 경우 카메라가 정상적으로 유동 IP를 획득했는지 확인하세요. • 카메라가 공유기에 설치되어 있는 경우, 포트 포워딩 설정이 올바르게 되어 있는지 확인하세요.
영상을 모니터링 하고 있던 웹뷰어의 접속이 끊어졌어요.	• 다른 접속자가 카메라 설정값을 변경하거나, 네트워크 설정을 바꾸거나 하게 되면 접속되어 있던 웹뷰어는 접속이 끊어집니다. • 네트워크 연결이 잘 되어있는지 확인하세요. • 카메라가 PPPoE 네트워크에 연결된 경우, 네트워크 상황이 나빠지면 웹뷰어의 접속이 끊어질 수 있습니다.
Internet Explorer7.0에서 탭브라우저로는 접속이 되지 않아요.	• 새창열거나 탭으로 접속하는 경우 같은 쿠키 정보를 공유하기 때문에 탭으로 접속 시 오류가 납니다. 새창열거나 탭을 사용하지 말고 “파일 → 새 세션”으로 열어 사용하세요.
IP 인스톨러 프로그램에서 네트워크에 연결된 카메라가 검색되지 않아요.	• PC의 방화벽 설정을 해제하신 후 다시 검색하시기 바랍니다.
영상이 겹쳐져 보여요.	• 두 대 이상의 카메라가 동일한 멀티캐스트 주소를 사용하지 않고 서로 다른 주소로 설정되어 있는지 확인하시기 바랍니다. 동일한 주소를 사용하면 영상이 겹쳐서 보일 수 있습니다.
영상이 보이지 않아요.	• 영상 전송방식이 멀티캐스트로 설정되어 있는 경우, 카메라가 접속한 로컬망에 멀티캐스트를 지원하는 라우터가 존재하는지 확인하세요.
영상 분석 이벤트가 발생했는데 알람 출력으로 출력이 발생하지 않아요.	• 알람 출력 포트를 올바르게 설정했는지 확인하세요.
Micro SD 메모리카드에 녹화가 되지 않아요.	• 메모리 카드가 불량인지 확인하세요.
Micro SD 메모리카드를 삽입하였으나 메모리 카드를 인식하지 못해요.	• 메모리 카드가 올바른 방향으로 정확히 삽입되어 있는지 확인하세요. 다른 기기에서 포맷한 메모리 카드는 본 카메라에서의 사용을 보증할 수 없습니다.

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If you want to obtain the complete Corresponding Source code in the physical medium such as CD-ROM, the cost of physically performing source distribution might be charged.

GPL SW

Component Name	License	URL
Base Kernel	GPL 3.0	
Busybox	GPL 2.0	http://www.busybox.net/downloads/snapshots
iproute2-3.1.0	GPL 2.0	
alsa-utils-1.0.24.2	GPL 2.0	
alsa-lib-1.0.24.1	GPL 2.0	
iptables-1.4.12.2	GPL 2.0	http://ftp.netfilter.org/pub/iptables
ethtool-3.2	GPL 2.0	
mt-d-1.4.1	GPL 2.0	ftp://ftp.infradead.org/pub/mt-d-utils
mi-diag-2.11	GPL 2.0	
rp-pppoe-3.10	GPL 2.0	http://www.roaringpenguin.com/pppoe/
wpa_supplicant-0.7.3	GPL 2.0	
bash-4.2	GPL 3.0	
zeroconf	GPL 2.0	

LGPL SW

Component Name	License	URL
glibc	LGPL 2.0	
inetutils	LGPL 3.0	
neon-0.29.6	LGPL 2.0 (The Manual and test suite are GPL)	http://www.webdav.org/neon/

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Version 2, June 1991

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revised on June 17, 2004
revised on December 21, 2006
revised on March 24, 2009

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4. In the event that T-Engine Forum accepts the request mentioned in Article 6.2, T-Engine Forum shall register and distribute the Ported Source Code as the Source Code for T-Kernel. Provided, however, that the Ported Source Code may be treated in the same way as the Modified Source Code until the time of registration hereunder.
5. The provision set forth in Article 3 shall apply to the Ported Source Code registered in accordance with this Article.

Article 7. Use for Other Purpose

1. Any use of the Source Code, the Modified Source Code or the Ported Source Code other than those stipulated in Articles 4, 5 and 6 shall be subject to the prior approval of T-Engine Forum.

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Julian Seward, jseward@bzip.org

bzip2/libbzip2 version 1.0.5 of 10 December 2007

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iperf performance test

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files http://www.ietf.org/rfc/rfc1950.txt (zlib format), rfc1951.txt (deflate format) and rfc1952.txt (gzip format).

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- 제품과 관련된 타기기의 설치, 설명 요청시

[3] 단순 분해조립, 간단조정, S/W 업그레이드 등으로 서비스 요청한 경우

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공개된 장소에 CCTV 설치 운영시 이것만은 꼭 알아 두세요

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[2] CCTV 안내판을 알아보기 쉬운 장소에 부착

- 설치목적, 촬영장소 · 범위 관리책임자 연락처 안내

[3] 녹음 금지 및 임의조작 금지

- 당초 설치 목적을 벗어나 함부로 조작하거나 다른 곳을 비추는 행위 금지

[4] CCTV 영상정보의 무단 유출 · 공개금지

- 개인영상정보를 제공하는 경우 본인 확인 후 필요 최소한으로 제공, 타인영상은 모자이크 처리

[5] CCTV 운영관리 방침수립 · 공개

- 개인 영상정보관리책임자 지정, CCTV 운영관리 방침을 홈페이지 등에 공개

[6] CCTV 영상정보의 안전성 확보조치

- 관리자 외 접근 통제, 관리자별 개별 ID 발급, 잠금장치 마련 등

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[illegible]



한화테크윈(주)

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