SISTEM KUMANDASI
Kullanım Kılavuzu

SPC-6000

SAMSUNG

Sistem Kumandası
Kullanım Kılavuzu

genel b akış

ÖNEMLI GÜVENLIK YÖNERGELERI

1. Bu yönergeleri okuyun.
2. Bu yönergeleri saklayın.
3. Uyarıları dikkate alın.
4. Yönergeyi takip edin.
5. Bu cihazı suyun yakınında kullanmayın.
6. Yalnızca kuru bir bezle temizleyin.
7. Havalandırma deliklerini kapatmayın. Üreticinin talimatlarına göre kurun.
8. Radyatör, ısı aygıtları gibi ısı kaynaklarının veya (amplifikatörler dahil) ısı üreten diğer cihazların yaynına koymayın.
9. Güvenlik amaçlı polarize veya topraklamalı tip fişi bozmayın.
   Polarize fiş, biri diğerinden daha geniş iki ağza sahiptir. Topraklama tipi fiş iki ağza ve üç topraklama dişine sahiptir. Geniş ağız veya üçüncü diş güvenliğiniz için sağlanmıştır.
   Verilen fiş prizinize uymuyorsa tam uyan bir prizle değiştirmek için elektrikçiyle görüşün.
10. Özellikle fişlerde, priz yuvalarında ve üründen çıkan uçlarda sıkışan veya yürüyüş yolu üzerinde olan güç kablosunu koruyun.
11. Yalnızca üretici tarafından belirtilen ekleri/ aksesuarları kullanın.
12. Yalnızca üretici tarafından belirtilen veya cihazla birlikte satılan tekerlekli taşıma sehpası, kamera ayağı, üç ayaklı sehpa, dirsek veya masa kullanın. Tekerlekli taşıma sehpası kullanıldığında, devrilmeden kaynaklanabilecek yaralanmalardan kaçınmak için sehpa/ cihaz kombinasyonunu dikkatli taşıyın.
13. Fırtına sırasında veya uzun süre kullanılmadan bırakıldığında bu cihazı prizden çıkartın.
14. Bütün servis işlemlerini yetkili servis personeline bildirin. Güç kaynağı kordonu veya fişin zarar görmesi, sıvının dökülmesi veya cihazın içine nesne düşmesi, cihazın yağmura veya neme maruz kalması, normal çalışmaması veya düşmesi gibi herhangi bir şekilde cihaz hasar gördüğünde servis gereklidir.

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UYARI

YANGIN VEYA ELEKTRIK ŞOKU RISKINI AZALTMAK IÇIN, BU CIHAZI YAĞMUR VEYA NEME MARUZ BIRAKMAYIN. CİHAZDAKİ HAVALANDIRMA IZGARALARINA VEYA DİĞER DELİKLERE HİÇBİR METAL NESNE SOKMAYIN.

Cihaza sıvı damlatılmamalı veya dökülmemelidir; ayrıca vazo gibi sıvı dolu nesneler cihazın yakınında bulunmamalıdır.

DİKKAT

⚡	**DİKKAT**	⚠
	ELEKTRİK ÇARPMA RİSKİ VARDIR AÇMAYIN	

DİKKAT : ELEKTRİK ÇARPMASI RİSKİNİ AZALTMAK İÇİN ARKA KAPAĞI KALDIRMAYIN (VEYA ARKAŞINI AÇMAYIN) KULLANICININ MÜDAHELE EDEBİLECEĞİ PARÇA BULUNMAMAKTADIR. YETKİLİ SERVİS PERSONELİNE BAŞVURUNUZ.

GRAFİK SEMBOLLERİNİN AÇIKLAMASI

Eşkenar üçgen içindeki ok uçlu şimşek sembölü, ürün muhafazasında, kişiyi elektrik çarpmasına maruz bırakabilecek büyüklükte "tehlikeli gerilim" olduğunu kullanıcıya haber vermeyi amaçlar.

Eşkenar üçgen içindeki ünlem işareti, ürünle beraber verilen literatürde önemli çalışma ve bakım (servis) talimatlarının olduğunu kullanıcıya haber vermeyi amaçlar.

Lütfen aşağıdaki önerilen güvenlik önlemlerini dikkatle okuyun.

Bu cihazı düz olmayan bir yüzeye yerleştirmeyin.	Doğrudan güneş ışığına maruz kalacağı bir yüzeye, ısıtma cihazlarının yakınına veya aşırı soğuk bir alana monte etmeyin.
Bu cihazı yakına yerleştirmeyin.	Bu cihazı kendiniz onarmaya çalışmayın.
Ürünün üzerine su dolu bir bardak koymayın.	Manyetik kaynakların yakınına monte etmeyin.
Havalandırma açıklıklarını kapatmayın.	Ürünün üzerine ağır nesneler koymayın.

Kullanım Kılavuzu, ürünlerin nasıl kullanılabileceğini gösteren bir kılavuz kitaptır

Kitaptaki kullanım sembolü şu anlamlara gelmektedir

• Referans : ürünün kullanımına yardımcı olacak bilgiler sağlandığında

• Uyarı : Talimata uyulmaması nedeniyle ürünün zarar görmesi veya yaralanma olasılığı söz konusuysa

※ Lütfen bu kılavuzu ürünleri kullanmadan önce güvenliğiniz için okuyun ve güvenli bir yerde saklayın.

genel b akış

Samsung Techwin üretimin tüm aşamalarında çevreye özen gösterir ve müşterilerine daha çevre dostu ürünler sağlayabilmek için gerekli tedbirleri alır.

Eco işareti, Samsung Techwin'in çevre dostu ürünler yaratma isteğini temsil eder ve ürünlerin AB RoHS Talimatlarını uygun olduğunu gösterir.

Bu Ürünün Uygun Şekilde Atılması (Atık Elektrikli ve Elektronik Ekipman)

(Ayrı toplama sistemlerine sahip Avrupa Birliği ülkeleri ve diğer Avrupa ülkelerinde geçerlidir)

Ürün, aksesuarlar veya literatürde yer alan bu işaret, ürünün ve elektronik aksesuarlarının (örn. şarj cihazı, kulaklık, USB kablosu), kullanım ömürlerinin sonunda diğer ev atıklarıyla birlikte atılması gerektiğini belirtir. Kontrolsüz atık atılması nedeniyle çevrenin veya insan sağlığının zarar görmesini önlemek için lütfen bu öğeleri diğer atık türlerinden ayırın ve malzeme kaynaklarının sürdürülebilir bir şekilde yeniden kullanılmasını sağlamak için uygun bir şekilde geri dönüşümünü sağlayın.

Ev kullanıcıları, çevreye zarar vermeden bu öğelerin nasıl ve nerede geri dönüşümünü sağlayabileceklerini öğrenmek için ürünü aldıkları perakendecilere veya yerel devlet dairesine başvurmalıdır.

Ticari kullanıcılar tedarikçileriyle temas kurup satın alma sözleşmesinin koşullarını ve şartlarını kontrol etmelidir. Bu ürün ve elektronik aksesuarları atma işlemi için diğer ticari atıklarla karıştırılmamalıdır.

İÇİNDEKI

● GENEL B AKIŞ

genel b akış

TEMEL ÖZELLIKLER

SPC-6000 sistem kumandası; RS-485 bağlantısı kullanan PTZ kamera, DVR, MATRİS gibi harici cihazları kontrol etmenizi sağlar.
Ekran menüsü, dokunmatik ekran ve joystick ile kullanımı kolay bir arayüz sunar.

- Uzak mesafeden kontrol

- RS-485 bağlantısı ile 1 km'ye kadar olan mesafede kontrol edebilirsiniz.

- Entegre sistem kontrolü

- Tek bir sistem kumandasıyla tüm kameraları (alıcı ünitesi), DVR ve MATRİS'i kontrol edebilirsiniz.

- Birden fazla sistem kumanda bağlantısı

- Sistemi farklı bölgelerden kontrol edebilir ve aynı anda 16'ya kadar kumandaya bağlanabilirsiniz.

- Joystick ve jog shuttle modülü arasında geçiş yapma

- Kullanıcıya kolaylık sağlamak amacıyla joystick ve jog shuttle modülünün konumları sol ve sağ olarak değiştirilebilir.

- Kullanıcı dostu arayüz
  Sistem kumandasının çalışma durumu ekranda görüntülenir. Dokunmatik ekran, menüden kolay seçim yapmanızı; joystick de basit ve kolay manipülasyon yapmanızı sağlar.

❖ Uyumluluk Listesi

- Kamera

- MATRIX
  SMX-25632

- DVR
  SRD-XXXX serisi, SHR-8/7/6XXX serisi, SVR-1670, SRD-480D

❖ Adaptörün Teknik Özellikleri

- Voltaj : 1) Giriş (AC) : 100~240V
  2) Çıkış (DC) : 12V

- Kapasite (çıkış akımı) : 4A

- Sürekli Standart Elektrik Yükü : 48W

- Sıcaklık : 1) Çalışma Sıcaklığı: 0 ~+40℃
  2) Saklama: -20 ~+60℃

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PAKETIN İÇINDEKILER

Ürün paketini açın ve ürünü zemine veya düz bir yüzeye yerleştirin.
Aşağıdaki parçaların ürün paketinde olup olmadığını kontrol edin.
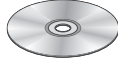
Ana Ünite	Kullanım Kılavuzu CD's	Hızlı Kullanma Kılavuzu
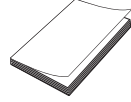
Güç Adaptörü 1EA	Güç Kablosu 1EA	Terminal Bloğu 1EA
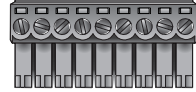
BIR BAKIŞTA SISTEM KUMANDASI

Ön Kısım
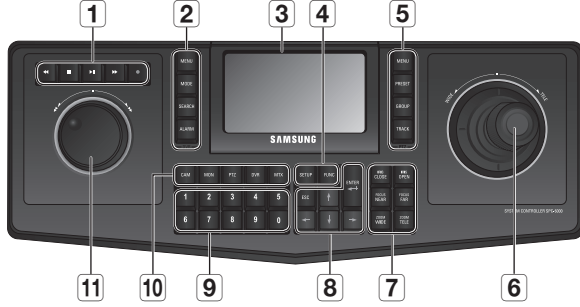
	Öğe	Açıklama
1	DVR Oynatma Çubuğu	Oynat/Duraklat, Hızlı İleri Al/Hızlı Geri Al, Durdur, Kaydet
2	DVR Kontrol Çubuğu	Seçilen menüye erişim, arama yapma, split modu seçme veya alarmı kontrol etme seçenekleri sunar.
3	LCD Ekran	Sistem kumandasının çalışma durumunu ve ayar menüsünü gösterir.
4	AYAR Çubuğu	[**FUNC**] düğmesine basın ve Ayar menüsüne girmek için [**SETUP**] öğesine tıklayın.
5	Kamera Çalışma Çubuğu	Seçilen PTZ menüsüne erişim sağlar veya Ön Ayar, Grup veya Parça komutlarını yürütür.
6	Joystick Kumandası	PTZ kamera veya alıcı üniteyle bağlantılı olarak yukarı ve aşağı Pan/Eğme işlemi yapmanızı sağlar. Zoom işlevini kontrol etmek için joystick'i saat yönüne veya saatin ters yönüne çevirin. Bağlantılı kumandanın yönünü, kumandanın menü ekranından kontrol edebilirsiniz.

genel b akış

Öğe		Açıklama
7 **Kamera Mercek Çubuğu**	IRIS	İris Kontrolü (CLOSE/OPEN)
	FOCUS	Odaklamayı ayarlama (NEAR/FAR)
	ZOOM	Yakınlaştırma/Uzaklaştırma (WIDE/TELE)
8 **Gezinme, ENTER, ESC**	Gezinme	Menü öğelerinde gezinim sağlar
	ENTER	Gezinim düğmelerini kullanarak istenilen öğeye gitmek ve onu seçmek için kullanılır.
	ESC	Son yapılan işlemi iptal etmek için kullanılır.
9 **Rakam (0-9) Düğmeleri**	Kamera, monitör, DVR veya Preset ayarları için sayısal değer girmek amacıyla kullanılır.	
10 **Kumanda Seçim Çubuğu**	Kamera, monitör veya DVR seçmek için kullanılır.	
11 **Jog Shuttle**	Jog	DVR oynatma modunda ileri/geri kare aramak için kullanılır.
	Shuttle	DVR modunda İleri/Geri/Oynat/HIZLI İLERİ/GERİ işlemlerini gerçekleştirmek için kullanılır

Arka Kısım
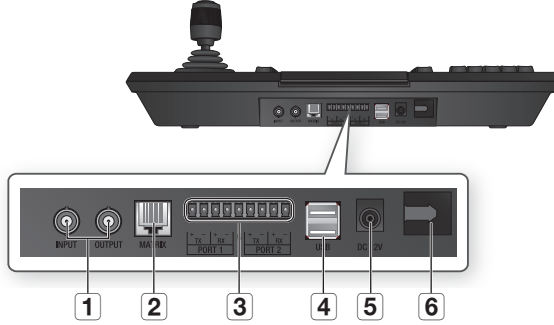
Öğe		Açıklama	
1 Video Giriş/Çıkış		Video giriş/çıkış bağlantı noktası	
2 MATRIX		Matris bağlantı noktası	
3 RS-485	PORT 1	RS-485 bağlantısı yoluyla kamera veya DVR gibi cihazlar ile kumanda arasında bağlantı sağlar.	
	PORT 2	Diğer SPC-6000 sistem kumandası bağlantılarının yapılmasını sağlar.	
4 USB Bağlantı Noktası		Sistem kumandası ayarlarının yedeklenmesi veya yazılımı güncellemek için kullanılır.	
5 Güç		DC 12V giriş bağlantı noktası ($-\!\!-\!\!\ominus\!\!-\!\!+$)	
6 Kablo Kancası		Güç kablosunun yerinden çıkmasını önler.	
		⬚ ■ Kumandayı kurarken ve kullanırken kablo kancasını kullanmayı unutmayın.	

⬚ ■ MATRIX bağlantı noktasının güç kablosu vardır. Bu nedenle, MATRIX bağlantı noktası kullanıyorsanız ayrı bir DC 12V takmanıza gerek kalmaz.

■ MATRIX'te, ana ve alt kontrol sinyallerini kontrol eden tek bir hat bulunur.

■ MATRİS sinyali, TTL seviyesindedir.
10 metreden kısa mesafede uzatma kablosu kullanın

kurulum

ÖNLEMLER

Ürünü kurmadan önce aşağıdaki talimatları iyice okuyun ve bu talimatlara uyun.

- Bu ürün yalnızca kapalı mekanda kullanılmak üzere tasarlanmıştır.

- Su veya nemden uzak tutun.

- Üzerine fazla güç uygulamayın.

- Güç kablosunu zorla çekmeyin.

- Kendi başınıza sökmeyin.

- Yalnızca nominal I/O aralığı kullanın.

- Sadece, ürünle birlikte verilen güç kablosunu kullanın.

- Mümkünse topraklaması olan elektrik prizi kullanın.

- Sistem kumandasını düz bir masada kurun.

- Ana ünitenin ve kablo sisteminin düzeni, sistemin düzgün bir biçimde çalışması açısından son derece önemlidir.

- Cihazlar birbirine çok yakınsa veya yeterli ölçüde havalanmayan bir ortamdaysa, sistem düzgün bir biçimde çalışmayabilir.
  Sisteme erişememe sorunu, onarımı zorlaştırır; hatta imkansız hale getirir.

- Sistem arızasını önlemek veya kapatılmasını azaltmak için odayı yeterli ölçüde havalandırın ve kapağını sıkıca kapayın.

- Yüksek gerilim içerdiği için sistem kumandasını istediğiniz zaman sökmeyin.

- Çalışma Sıcaklığı : 0°C ~ 40°C

- Saklama Sıcaklığı : -20°C ~ 60°C

- Çalışma Nem Oranı : % 10~% 70 Bağıl Nem

- Saklama Nem Oranı : % 10 ~ % 90 Bağıl Nem

- Güç Tüketimi : DC 12V, Maks. 4W ($- -\!\!\!\bullet\!\!- +$)

KURULUMDAN ÖNCE

- Kurmadan önce ürünü kapatmalısınız.

- Ciddi bir darbe veya sarsıntı, sistem arızasına neden olabilir.

- Güçlü manyetik veya elektrik girişiminin bulunduğu alanlardan veya radyo ya da TV seti gibi kablosuz cihazlardan uzak tutun.

- Ürünü kurarken veya kurduktan sonra kurulum alanını her zaman temiz ve tozdan uzak tutun.

- En uygun sıcaklıktaki açık ve düz bir yüzeye yerleştirin.
  Duvarla arasında en az 15 cm aralık olmalıdır.

- Havalandırma deliğini kapatmayın veya içine iletken nesne koymayın.

- Doğrudan güneş ışığına maruz bırakmayın. Herhangi bir fiziksel zararı önlemek adına, aksesuarları ve aletleri insanların erişiminden uzak tutun.

- Anormal bir duman veya koku bırakmak, yangına veya elektrik çarpmasına neden olabilir.
  Bu durumda ürünü hemen kapatın ve teknik destek için bizimle irtibat kurun.

- Şunları bulursanız, gerekli önlemi alın: Islak zemin, topraklanmamış güç uzatma kablosu, soyulmuş veya koruma topraklaması olmayan güç kablosu.

  - Silmek için kuru bir bez kullanın. Çok kirli veya lekeliyse, silmek için nötr deterjana batırılmış bir bez kullanın. Ürün kaplamasına zarar verebilecek alkol, benzen veya tiner gibi uçucu kimyasallar kullanmayın.

  - LCD monitörü yüksek sıcaklıkta kullanmayın. Güç koruma amacıyla ekran koruyucu kullanılması önerilir.

SISTEM KUMANDASININ EKRAN AÇISINI AYARLAMA

Daha iyi bir görüntü elde etmek için ekranı yukarı doğru çekebilirsiniz.

kurulum
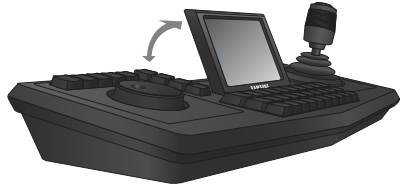
JOYSTICK VE JOG SHUTTLE'IN DÜZENINI DEĞIŞTIRME

Joystick ve jog shuttle modülünün konumunu kendinize uygun olarak değiştirebilirsiniz.

> ■ Sol ve sağ arasında geçiş yapmak için öncelikle sistem kumandasını kapatın ve modüller arasında elle geçiş yapın.
> Ya da, kumanda ayar menüsünde bulunan <**Değiştir**> düğmesine basın ve modülleri elle değiştirin. (► sayfa 38)

<Alt>
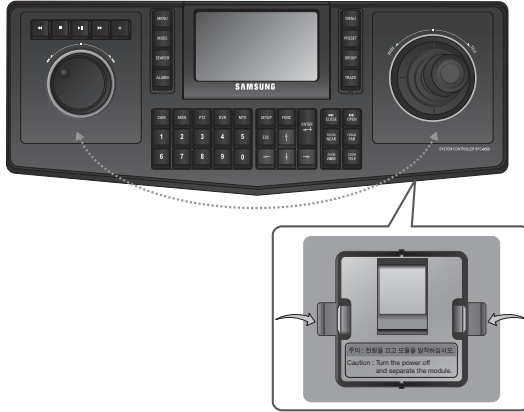
1. Modülü kaldırmak için sistem kumandasının alt kısmındaki iki kancaya da basın.

2. Joystick'i ve jog shuttle modüllerini kumandadan kaldırın ve konumlarını değiştirin.
   İşlem tamamlandığında, klik sesi duyana kadar her ikisini de yerleştirin.

harici bir cihazla bağlantı kurma

SPC-6000 sistem kumandası, kamera veya DVR gibi harici bir cihazla birlikte kullanılabilir.

RS-485 CIHAZINA BAĞLANMAK IÇIN YAPILMASI GEREKENLER

Sistem kumandasıyla, RS-485 bağlantı protokollerini destekleyen PTZ kamera veya DVR cihazını kontrol edebilirsiniz.

1. Arkadaki PORT 1 ile PTZ kamera veya DVR'nin RS-485 bağlantı noktası bağlantılarını kurun.

2. Harici cihazın sistemine göre bağlantı için Yarım Dupleks veya Tam Dupleksi seçin.

> ■ Yarım Dupleks için TX +/- terminal kullanın.
>
> ■ RS-485 bağlantılarının kutuplarına (+/-) özellikle dikkat edin.
>
> ■ Ürün paketiyle birlikte verilen terminal bloğunu kullanın.
>
> ■ RS-485 cihazının, SPC-6000 ile uyumlu olup olmadığını kontrol edin.
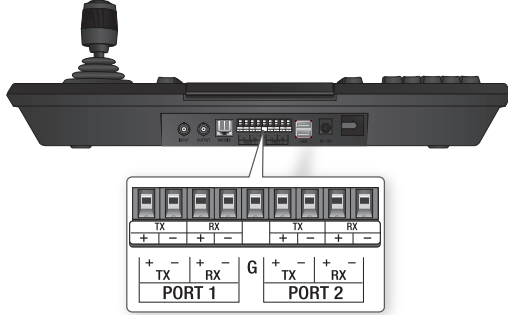
harici bir cihazla bağlantı kurma

MATRİS kullanılmadan klavye bağlanıyorsa
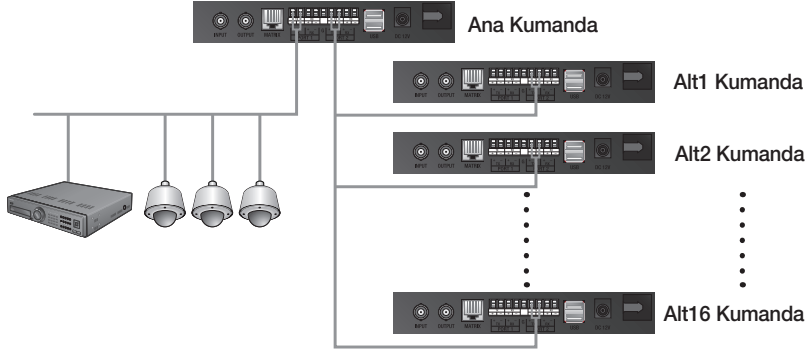
MATRİS kullanılarak klavye bağlanıyorsa

Ana Kumanda

PTZ Kamera / DVR

Alt Kumanda

PTZ Kamera / DVR
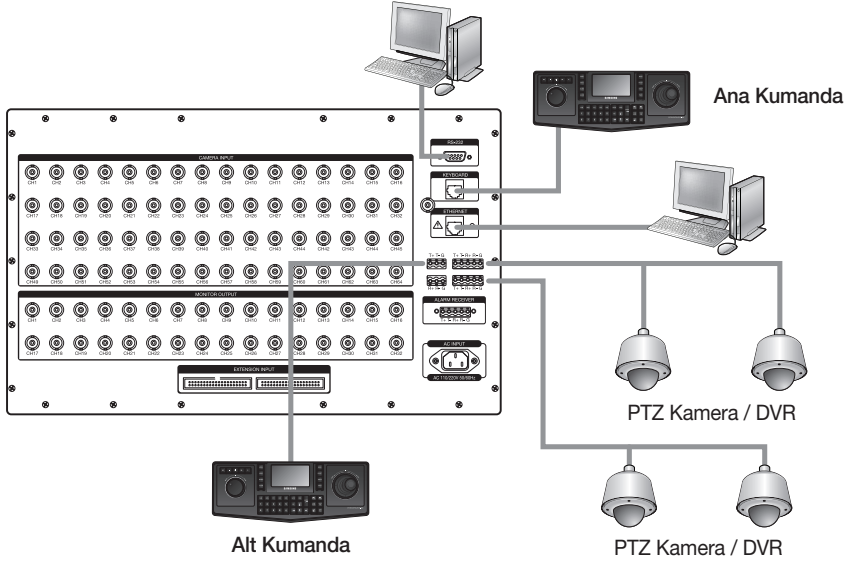
1. Ana kumandanın [**MATRIX**] bağlantı noktasını, matrisin [**KEYBOARD**] bağlantı noktasıyla bağlayın. MATRIX bağlantı noktasının güç kablosu olduğu için ayrıca DC 12V edinmenize gerek kalmaz.

2. Alt kumandanın TX+ ve TX-'sini sırasıyla matrisin T+ ve T-'sine bağlayın.
   - MATRİS'le senkronize olan alt kumandalar arasındaki baud hızı 9600 bps olarak sabitlenmiştir.
   - MATRİS Kimliği <**SUB 09**> olarak sabitlenmiştir.

3. DVR'yi ve PTX kamerayı MATRIX noktasına takın.

harici bir cihazla bağlantı kurma

PTZ kamerayı bağlama

Kamerayı kumanda etmek için PTZ kameranın arkasındaki RS-485 bağlantı noktasını, SPC-6000'in PORT 1'ine takın.

> ■ Kutup özellikleri, kameraya göre değişir.
> Ayrıntılı bilgi için, PTZ kameranın kullanım kılavuzuna bakın.

Yarım dupleks sistem için

- PTZ kameranın RS-485 bağlantı noktasının RX (+) ucunu, SPC-6000'e ait PORT 1'in TX (+) girişine takın.

- PTZ kameranın RS-485 bağlantı noktasının RX (–) ucunu, SPC-6000'e ait PORT 1'in TX (–) girişine takın.

Tam dupleks sistem için

- PTZ kameranın RS-485 bağlantı noktasının RX (+) ucunu, SPC-6000'e ait PORT 1'in TX (+) girişine takın.

- PTZ kameranın RS-485 bağlantı noktasının RX (–) ucunu, SPC-6000'e ait PORT 1'in TX (–) girişine takın.

- PTZ kameranın RS-485 bağlantı noktasının TX (+) ucunu, SPC-6000'e ait PORT 1'in RX (+) girişine takın.

- PTZ kameraya ait RS-485 bağlantı noktasının TX (–) ucunu, SPC-6000'e ait PORT 1'in RX (–) girişine takın.
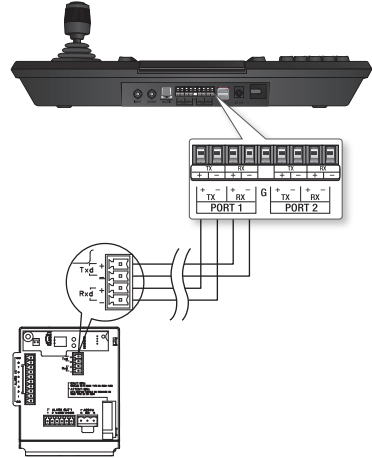
SRD-16XX/8XX ve SHR-8/7/6XXX Serisini DVR'ye bağlama

SPC-6000'i DVR'ye, DVR'nin arkasındaki RS-485 bağlantı noktasından takabilirsiniz.

Yarım dupleks sistem için

- DVR'ye ait RS-485 bağlantı noktasının TX (+) ucunu, SPC-6000'e ait PORT 1'in TX (+) girişine takın.

- DVR'ye ait RS-485 bağlantı noktasının TX (–) ucunu, SPC-6000'e ait PORT 1'in TX (–) girişine takın.

Tam dupleks sistem için

- DVR'ye ait RS-485 bağlantı noktasının TX (+) ucunu, SPC-6000'e ait PORT 1'in RX (+) girişine takın.

- DVR'ye ait RS-485 bağlantı noktasının TX (–) ucunu, SPC-6000'e ait PORT 1'in RX (–) girişine takın.

- DVR'ye ait RS-485 bağlantı noktasının RX (+) ucunu, SPC-6000'e ait PORT 1'in TX (+) girişine takın.

- DVR'ye ait RS-485 bağlantı noktasının RX (–) ucunu, SPC-6000'e ait PORT 1'in TX (–) girişine takın.
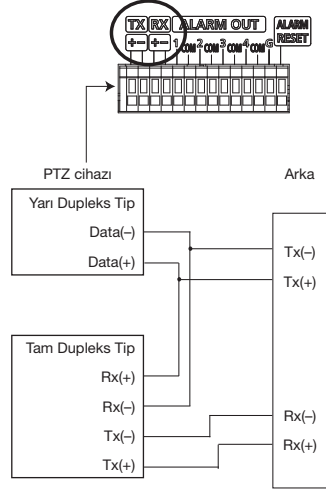
harici bir cihazla bağlantı kurma

SRD-4XX veya SHR-604X serisini DVR'ye takma

SRD-4XX veya SHR-604X serisinin arkasındaki RS-485 bağlantı noktasını SPC-6000'e takın.

❖ Yarım dupleks sistem için

- SRD-4XX veya SHR-604X'in TX (+) ucunu, SPC-6000'e ait PORT 1'in TX (+) ucuna takın.
- SRD-4XX veya SHR-604X'in TX (-) ucunu, SPC-6000'e ait PORT 1'in TX (-) ucuna takın.
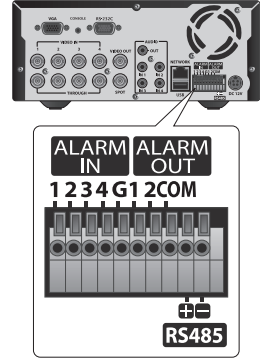
BAŞKA BIR SISTEM KUMANDASIYLA BAĞLANTI KURMA

▪ Aynı anda 16'ya kadar kumandayla bağlantı kurabilirsiniz.

▪ Kumandanın bağlantı ayarları için "**Alt Liste**" altındaki "**Menü Ayarı**" kısmına bakın. (► sayfa 37)

Yarım dupleks sistem için

- SPC-6000'e ait PORT 2'nin TX (+) ucunu, diğer SPC-6000'e ait PORT 2'nin TX (+) ucuna takın.

- SPC-6000'e ait PORT 2'nin TX (–) ucunu, diğer SPC-6000'e ait PORT 2'nin TX (–) ucuna takın.

Ana Kumanda

Alt Kumanda

Tam dupleks sistem için

- SPC-6000 ana kumandaya ait PORT 2'nin TX (+) ucunu, SPC-6000 alt kumandaya ait PORT 2'nin RX (+) ucuna takın.

- SPC-6000 ana kumandaya ait PORT 2'nin TX (–) ucunu, SPC-6000 alt kumandaya ait PORT 2'nin RX (–) ucuna takın.

- SPC-6000 ana kumandaya ait PORT 2'nin RX (+) ucunu, SPC-6000 alt kumandaya ait PORT 2'nin TX (+) ucuna takın.

Ana Kumanda

Alt Kumanda

- SPC-6000 ana kumandaya ait PORT 2'nin RX (–) ucunu, SPC-6000 alt kumandaya ait PORT 2'nin TX (–) ucuna takın.

✎ ▪ Başka bir sistem kumandasıyla bağlantı kurmak istiyorsanız PORT 2'yi kullanmalısınız.

menü kullanımı

BAŞLARKEN

1. Tüm sistem bileşen cihazlarını açın.

2. Güç adaptörünü sistem kumandasının arkasındaki bağlantı noktasına taktığınızda, oturum açma iletişim kutusu görüntülenir.

3. Tuş takımını kullanarak parolayı girin ve [**ENTER**] tuşuna basın.
PTZ kontrol sisteminin ana menüsü görünür.
  - Varsayılan parola "**4321**"dir.

PTZ KAMERANIN KONTROLÜ

PTZ kontrol moduna girmek için

Kumandanın [**PTZ**] tuşuna basın.

Kamera seçmek için

1. Seçtiğiniz kameranın numarasını girmek için rakam tuşlarını kullanın.

2. [**CAM**] seçeneğine veya [**ENTER**] tuşuna basın.

Pan/Tilt Kontrolü

Kameranın pan/tilt açısını ayarlamak için kumandanın joystick'ini kullanabilirsiniz.

Joystick merkezden ne kadar uzağa itilirse, hareket hızı da o kadar yüksek olur.

Zoom

Kamerada yakınlaştırma işlemini kontrol etmek için joystick'i saat yönünde döndürün veya [**ZOOM TELE**] tuşuna basın.

Kamerada uzaklaştırma işlemini kontrol etmek için joystick'i saatin ters yönünde döndürün veya [**ZOOM TELE**] tuşuna basın.

Odaklama

Kamerayı odaklamak için kumandadaki [**FOCUS FAR**] veya [**FOCUS NEAR**] tuşuna basın.

IRIS

Kameranın parlaklığını ayarlamak için kumandadaki [**IRIS OPEN**] veya [**IRIS CLOSE**] tuşlarına basın.

Ön Ayar

Kamerayı önceden belirlenen noktaya getirin.

Bir ön ayar oluşturmak için

1. Ön ayar düzenlemek istediğiniz kamerayı seçin.

2. Kamerayı istenilen noktaya getirmek için joystick'i kullanın.

3. [**SETUP**] tuşuna basın ve rakam tuşlarını kullanarak istenilen sayıyı girin.
   Ardından [**PRESET**] tuşuna basın.

Ön ayarı uygulamak için

1. Bir kamera seçin.

2. Rakam tuşlarını kullanarak istenilen sayıyı/sayıları girin ve [**PRESET**] tuşuna basın.

3. Ön ayar uygulanacaktır.

> ■ SCP-3430, SCP-2430, SCP-3250 ve SCP-2250 PTZ dome serileri için, yalnızca Samsung E protokolü seçiliyse en fazla 512 ön ayar desteklenir.

menü kullanımı

Dönme

Bu işlev, hareket alanını izlemek amacıyla kamerayı iki ön ayar noktası arasında hareket ettirmek için kullanılır.

Dönme ayarı

1. Menü ekranından <**Dönme**> öğesini seçin.

2. <**AYARLANMASI**> seçeneğine basın.

3. PAN/TILT seçmek için rakam tuşlarını kullanın ve ön ayarın başlangıcını ve bitimini belirleyin.

4. Hızı ve bekleme süresini belirleyin.

5. <**Kaydet**> seçeneğine basın.

Dönmeyi uygulamak için

1. Menü ekranından <**Dönme**> öğesini seçin.

2. Rakam tuşlarını kullanarak dönme türü için PAN veya TILT seçin.

3. Dönme işlevi devreye girer.

Grup

Bu işlev, sırasıyla çağırmadan önce ön ayarları gruplamak için kullanılır.

Bir grup oluşturmak için

1. Menü ekranından <**Grup/TARA**> öğesini seçin.
2. <**Grup ayarlama**> öğesini seçin.
3. Bir grup adı yazın ve [**ENTER**] tuşuna basın.
4. Hızı ve bekleme süresini belirleyin.
5. <**Kaydet**> seçeneğine basın.

Grup işlevini uygulamak için

1. Menü ekranından <**Grup/TARA**> öğesini seçin.
2. <**Grup yürütülmesi**> öğesini seçin.
3. Bir grup adı yazın ve [**ENTER**] tuşuna basın.
4. Grup işlevi devreye girecektir.

menü kullanımı

Tur

Bu işlev ile grupları sırasına göre devreye sokmadan önce en az bir gruptan oluşan bir tur yapabilirsiniz.

Tur düzenlemek için

1. Menü ekranından <**Tur**> öğesini seçin.

2. <**Tour Setting**> öğesini seçin.

3. Tura eklemek istediğiniz grubun sayısına
   bastığınızda, grup tura eklenir.
   ■ Bir tura 6 adede kadar grup ekleyebilirsiniz.

4. Değişikliklerinizi uygulamak için <**Kaydet**> tuşuna
   basın.

Tur işlevini uygulamak için

1. Menü ekranından <**Tur**> öğesini seçin.

2. <**Tour Executing**> öğesini seçin.

3. Tur işlevi uygulanacaktır.

İzleme

Joystick veya kamera tuşlarıyla kumandaya, belirli bir süre için kamera hareketini kaydettirebilir ve hareketi tekrarlatabilirsiniz.

İzleme işlevi ayarlamak için

1. Menü ekranından <**İzleme/ŞABLON**> öğesini seçin.

2. <**KAYDET**> öğesini seçin.

3. Kaydetmek üzere bir iz numarası belirleyin.

4. Joystick veya kamera tuşlarıyla, kamera hareketini
   istediğiniz gibi kontrol edin.

İzleme işlevini uygulamak için

1. Menü ekranından <**İzleme/ŞABLON**> öğesini seçin.

2. <**OYNAT**> öğesini seçin.

3. Uygulanacak izleme numarasını belirleyin.

4. İzleme işlevi uygulanacaktır.

Otomatik Odaklama

1. Menü ekranından <**A/F**> öğesini seçin.

2. Otomatik odaklama etkinleşir.

Sıfırlama

1. Menü ekranından <**Sıfırla**> öğesini seçin.

2. Kamera sıfırlanacaktır.

Hedef Kilit

1. Menü ekranından <**Hedef Kilit**> öğesini seçin.
Kamerada dikdörtgen bir kutu görünür.

2. Kamerayı takip edilecek nesneye çevirin ve [**ENTER**]
tuşuna basın.
  ■ Bu uygulama yalnızca takip etme işlevini destekleyen kameralar için geçerlidir.

İz

1. Menü ekranından <**İz**> öğesini seçin.

2. İzleme işlevi devreye girecektir.
  ■ Bu uygulama yalnızca takip etme işlevini destekleyen kameralar için geçerlidir.

● MENÜ KULLANIMI

menü kullanımı

DVR KONTROLÜ

DVR'ler, modeline göre farklı özelliklere sahip olabilir.
Ayrıntılı bilgi için güncel kullanım kılavuzuna bakın.

> ✎ ■ Yanlış yapılan bir ayar DVR'yi kullanırken sorun çıkarabilir.

DVR seçmek için

1. [**DVR**] tuşuna basın.

2. Rakam tuşlarını kullanarak DVR numarası (0~255) girin
   ve [**ENTER**] tuşuna basın.

3. Ana menü ekranı açılır.
   Modele göre değişir.

> ✎ ■ SRD protokollerini destekleyen DVR için menü ekranında
>   sadece menü öğeleri görüntülenir.
>
>   ■ SRD protokollerini destekleyen bir DVR takarsanız PTZ
>   ayarları otomatik olarak yapılır.

Bir DVR kanalı seçmek için

1. Rakam tuşlarını kullanarak istenilen DVR kanalını girin.

2. [**CAM**] seçeneğine basın.

DVR menüsünü kontrol etmek için

1. Seçilen DVR'nin menüsünü kontrol etmek için DVR kontrol çubuğundaki [**MENU**] tuşuna basın.

2. İstenilen menü öğesine gitmek için yön düğmelerini kullanın ve [**ENTER**] tuşuna basın.

DVR'ye bağlı PTZ cihazını kontrol etmek için

DVR modeline bağlı olarak, DVR'ye bağlı PTZ cihazını kontrol edemeyebilirsiniz.
Böyle bir durumda, DVR kontrol modundan kamera kontrol moduna geçmek için [**PTZ**] tuşuna basın.

DVR modundaki PTZ cihazını kontrol etmek için

1. DVR menü ekranının alt sağ köşesindeki [**PTZ**] tuşuna basın.

2. DVR'ye bağlı olan PTZ kamerayı kontrol etmek için joystick'i kullanın.
Ayrıntılı bilgi için DVR kullanım kılavuzuna bakın.

DVR oturumu açma

Doğru kullanıcı hesabıyla DVR menüsünde oturum açmalısınız.

> ▪ Giriş kutusunu devreden çıkarmak için <**Girdi**> öğesini seçin. Artık kanal değiştirmek veya [**CAM**] tuşunu kullanmadan DVR için şifre girmek için sadece rakam tuşlarını kullanabilirsiniz.
> Önceki moda dönmek için yine <**Girdi**> öğesini seçin.

menü kullanımı

MATRIS KONTROLÜ

Monitörü ve kamerayı Matris modunda kontrol etmek için

Monitörü ve kamerayı Matris modunda kontrol edebilirsiniz.

1. [**MTX**] tuşuna basın.

2. Bir monitör numarası seçin ve [**MON**] tuşuna basın.

3. Bir monitör numarası seçin ve [**CAM**] tuşuna basın. Seçilen monitör, seçilen kameranın video kaydını oynatır.

Geçerli video kaydını önceki monitörde oynatmak için

Seçeceğiniz kameranın numarasını girin.

1. Matris ayarlama ekranındaki kamera numarasına ve [**CAM**] tuşuna basın.

2. Önceki kamera, en son seçilen monitörün video kaydını oynatır.

Otomatik Seçim

Matris ayarlama menüsündeki işlemler için bir program yapabilirsiniz.

1. Matris ayarlama menüsünden bir monitör numarası seçin ve [**MON**] tuşuna basın.

2. Menü ekranından <**Otomatik Seçime Ayari**> öğesini seçin.

3. <**Otomatik Seçime Ayari**> ekranı göründüğünde bağlantı kurulacak monitör ile kamerayı seçin ve bekleme süresini belirleyin.

4. #1 No'lu kameranın ayarları tamamlandığında <**Devam**> öğesine basın ve 2 No'lu kameranın bekleme süresini belirleyin.

5. Bekleme süresi ayarı tamamlandığında <**Kaydet**> seçeneğine basın.

Çalıştır / Bekle

Çalıştır/Beklet işlevi, yapmış olduğunuz otomatik seçimi çalıştırır veya bekletir.

Otomatik Seçimi ayarladığınız gibi çalıştırmak için <**Tümü**> + <**Çalıştır**> kombinasyonuna basın.

Otomatik Seçimi çalıştırmayı durdurmak ve girişinizi beklemek için <**Tümü**> + <**Bekle**> kombinasyonuna basın.

> ■ Bu işlevi tek bir monitörde uygulamak için "monitör numarası" + <**Çalıştır**> veya "monitör numarası" + <**Bekle**> kombinasyonuna basın.

Alarm Oynt

Sensör, Alarm Çalma modunda devreye sokulursa, alarm ünitesi sireni AÇIK olarak ayarlanmışsa siren sesi duyulur. Alarm ünitesi, gösterge kontrol çıktısını ayarlamışsa, harici cihazları göstergeleri kullanarak da kontrol edebilirsiniz.

Alarm ünitesinin alarmını devreye sokmak için yeniden <**Alarm Oynt**> öğesine basın.

menü ayarı

ANA MENÜYE ERIŞMEK IÇIN

1. Kumandadaki [**FUNC**] düğmesine basın ve [**SETUP**] öğesine tıklayın.

2. Sistem ayarı ekranı göründüğünde istenilen menü öğesini seçin.

PTZ AYARI

PTZ ayarı ekranından protokolü ve baud hızını belirleyebilirsiniz.

1. Ana ekrandan ayarlama yapmak için <**PTZ**> seçeneğine basın.

2. İstenilen menüye gitmek için yön tuşlarını veya joystick'i kullanın.

3. Ayarları değiştirmek için [**ZOOM WIDE**] veya [**ZOOM TELE**] seçeneklerini kullanabilirsiniz.

4. Protokol ve baud hızı ayarlarını yaptıktan sonra <**Kaydet**> seçeneğine basın.

5. PTZ Ayarı ekranından çıkmak için <**Tamam**> veya [**ESC**] tuşuna basın.

> ✎ ■ Farklı bir sayfaya geçmeden önce ayarlarınızı kaydedin.

DVR AYARI

DVR ayarı ekranından DVR türünü ve baud hızını belirleyebilirsiniz.

1. Ayarlama ana ekranından <**DVR**> seçeneğine basın.

2. Kamera numarası seçmek ve DVR türü belirlemek için rakam tuşlarını veya joystick'i kullanın.

3. Baud hızını belirleyin.

4. İstediğiniz ayarları yaptığınızda <**Kaydet**> seçeneğine basın.

5. DVR Ayarı ekranından çıkmak için <**TAMAM**> veya [**ESC**] tuşuna basın.

Sistem Ayarları		
NO.	DVR TÜRÜ	BAUD
00000	SRD	9600
00001	SRD	9600
00002	SRD	9600
00003	SRD	9600
00004	SRD	9600
00005	SRD	9600
00006	SRD	9600
	Kaydet	TAMAM

> ■ Farklı bir sayfaya geçmeden önce ayarlarınızı kaydedin.

KUMANDA AYARI

Kumanda Kimliği

İletişim sistemi için RS-485'i veya RS-422'yi seçebilirsiniz.

1. Kumanda ve harici cihazlar arasındaki iletişim sistemi için RS-485'i veya RS-422'yi seçin.

2. Bağlantı noktası kimliğini belirlemek için bağlantı noktası düğmesine basın.

Sistem Ayarları			
● Kontrolör Kimliği			
RS-485 ▼	PORT 1		PORT 2
● Kumanda Düğmesi	Düğme	● Birim	Değiştir
● Ekran Koruyucu	On	● Dil	Türkçe
● Fab. Ayr. Dn.	Sıfırla	● Şifre	Ayarla
		Kaydet	Tamam

menü ayarı

BAĞLANTI NOKTASI 1 KİMLİĞİ

Diğer cihazlarla bağlantı kurma sırasında kullanmak için kumanda kimliğini belirleyebilirsiniz.

1. Kontrol arayüz cihazı ayarlama ekranından [**Port 1**] seçeneğine basın.

2. Kimliği belirleyin ve <**Kaydet**> seçeneğine basın.
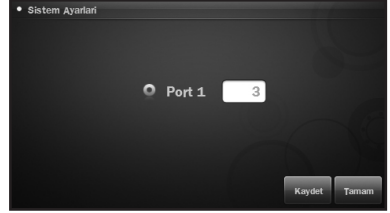
BAĞLANTI NOKTASI 2 KİMLİĞİ

Kumandalar arasında bağlantı kurmak için ana veya alt kumanda belirleyebilir ve ayrıca matris ve alt liste kullanımını da ayarlayabilirsiniz.

1. Kontrol arayüz cihazı ayarlama ekranından [**Port 2**] seçeneğine basın.

2. Yön tuşlarını kullanarak istenilen öğeyi ve kumandalar arasındaki iletişim sistemini seçin.
   - Çoklu kumanda ortamında alt liste belirlemelisiniz.

3. İstediğiniz ayarları yaptığınızda <**Kaydet**> seçeneğine basın.

Alt Liste

Ana ve alt kumanda özelliğine sahip iletişim sistemi için <**Alt Liste**> seçeneğini ayarlamalısınız.

1. <**Alt Liste**> tuşuna basın.

2. Yön tuşlarını kullanarak istenilen öğeyi seçin ve [**ZOOM WIDE**] veya [**ZOOM TELE**] seçeneklerini kullanarak ayarlamaları yapılandırın.
   - MATRİS Kimliği <**SUB 09**> olarak sabitlenmiştir.

3. İstediğiniz ayarları yaptığınızda <**Kaydet**> seçeneğine basın.

4. <**Alt Liste**> ekranından çıkmak için <**TAMAM**> veya [**ESC**] tuşuna basın.

ID.	SELECT	ID.	SELECT
01	Enable	–	—
02	Enable	10	Enable
03	Enable	11	Enable
04	Enable	12	Enable
05	Enable	13	Enable
06	Enable	14	Enable
07	Enable	15	Enable
08	Enable	16	Disable

Kaydet TAMAM

Joystick Düğmesinin Kullanımı
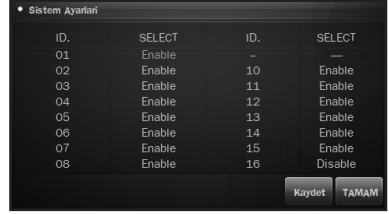
Joystick düğmesinin kullanımını ayarlayabilirsiniz.

1. Joystick <**Düğme**> öğesine basın.

2. Joystick kullanma ekranından, seçilen joystick düğmesi için bir işlev düğmesi seçin.

3. Geçerli ayarı kontrol edin ve <**Çikiş**> seçeneğine basın.

Kumanda Düğmesi Ayarları

◉ Geçerli Ayarlar   Giriş

A/F   Hedef Kilit   Giriş

Çikiş

Ekran Koruyucu

Uzun bir süre kumandayı kullanmayacaksanız, ekran koruyucuyu etkinleştirebilirsiniz.

1. Logo ekranı görüntülemek isterseniz, ekran koruyucuyu <**Açık**> duruma getirin.

2. Değişiklikleri uygulamak için <**Tamam**>; ayarlarınızı iptal etmek için <**Çikiş**> seçeneğine basın.

menü ayarı

Fabrika Ayarları

Geçerli ayarları, fabrika ayarlarına geri döndürebilirsiniz.

1. <**Sıfırla**> seçeneğine basın.

2. <**TAMAM**> seçeneğine basın.
   Geçerli ayarlar, fabrika ayarlarına geri döner.

3. Menüden çıkmak için <**Çikiş**> seçeneğine basın.

Modüller arasında geçiş yapmak için

Jog shuttle ve joystick konumlarını soldan sağa veya tam tersi olarak değiştirebilirsiniz.

1. <**Değiştir**> seçeneğine basın.

2. Görüntüdeki Modül Değiştirme ekranından jog shuttle ve joystick konumlarını değiştirebilirsiniz.

3. Ekrandan çıkmak için <**Çikiş**> seçeneğine basın.
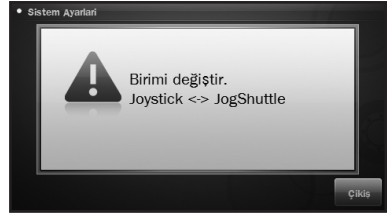
Dil

Kullanıcı arayüzü için tercih ettiğiniz dili seçebilirsiniz.

1. <**Dil**> seçeneğine basın.

2. Görünen Dil seçim ekranındaki yön tuşlarını veya joystick kullanarak tercih edilen dili seçebilirsiniz.
   - Dil ayarı hemen seçtiğiniz dile değişecektir.

3. Dil seçimi ekranından çıkmak için <**Çikiş**> seçeneğine basın.

Şifre

Kumandada parola kullanımını etkinleştirme veya devre dışı bırakmak üzere ayarlama yapabilirsiniz.

1. Parola <**Ayarla**> tuşuna basın.

2. Parolayı etkinleştirmek için <**Açik**> duruma getirin. Devre dışı bırakmak için de <**Off**> duruma getirin.

3. Geçerli parolayı girin.

4. Değişiklikleri uygulamak için <**OK**>; ayarlarınızı iptal etmek için <**Çikiş**> seçeneğine basın.

Sistem Ayarlari	
Şifreyi Değistir	
● Şifre	Off
● Geçerli Şifre	
● Yeni Şifre	
● Şifreyi Onayla	
	TAMAM Çikis
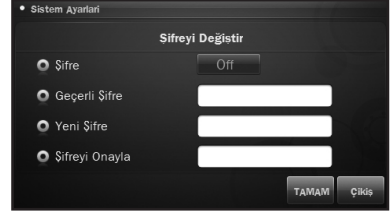
Parolayı ayarlamak için

Parolayı değiştirebilirsiniz.

1. Parola <**Ayarla**> tuşuna basın.

2. Geçerli parolayı girin.

3. Yeni bir parola girin.

4. Değişiklikleri uygulamak için <**Tamam**>; ayarlarınızı iptal etmek için <**Çikiş**> seçeneğine basın.

> ■ Varsayılan parola "**4321**"dir.

> ■ Varsayılan şifre bilgisayar korsanlığı neticesinde ifşa olabilir, bu yüzden ürünü yükledikten sonra şifreyi değiştirmeniz önerilmektedir.
> Şifrenin değiştirilmemesinden kaynaklanan güvenlik sorunlarının ve benzeri sorunların kullanıcı sorumluluğunda olduğunu unutmayın.

menü ayarı

CIHAZ YAZILIMINI GÜNCELLEME

USB bellekteki yazılım dosyalarını kullanarak mevcut cihaz yazılımını güncelleyebilirsiniz.

Kumanda yazılımını güncellemek için

En yeni cihaz yazılımı dosyalarını indirebilir ve kumandayı güncelleyebilirsiniz.

1. En yeni cihaz yazılımı dosyalarının bulunduğu USB belleği sistem kumandasına takın.

2. Menü ana ekranından <**Güncelle**> seçeneğine basın.

3. <**Kontrolör Yazılımını Güncelle**> seçeneğine basın.
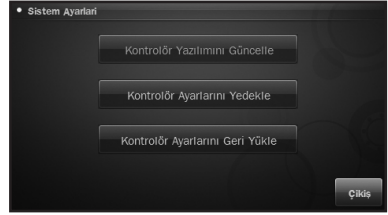
4. Güncelleme ekranından <**TAMAM**> seçeneğine basın. Güncelleme durumu, ilerleme çubuğunda gösterilecektir.

5. Güncellemeden sonra sistem yeniden başlatılana kadar bekleyin.

> ▪ Güncelleme sırasında USB belleği veya güç kablosunu çıkarmayın. Aksi takdirde cihaz yazılımı güncellemesi başarısız olabilir veya sistemin arızalanmasına neden olabilir.
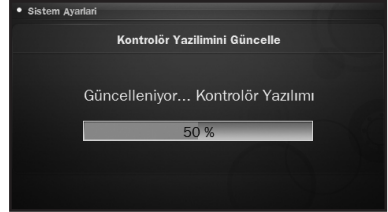
Kumanda ayarlarını yedeklemek için

Kumandayı veya kamerayı değiştirmek isterseniz, kumandanın ayarlarını bir dosya halinde kaydedebilir ve yeni bir kameraya yükleyebilirsiniz.

1. Menü ana ekranından <**Güncelle**> seçeneğine basın.

2. <**Kontrolör Ayarlarını Yedekle**> seçeneğine basın.

3. <**TAMAM**> seçeneğine basın.
Yedekleme süreci başlar.

● Sistem Ayarlari

Kontrolör Ayarlarini Yedekle

Başlatır ... Kontrolör Ayarlarını Yedekle

50 %

Ⓜ ▪ Yedekleme sırasında USB belleği veya güç kablosunu çıkarmayın. Aksi takdirde kumanda ayarlarının yedeklenmesi başarısız olabilir.
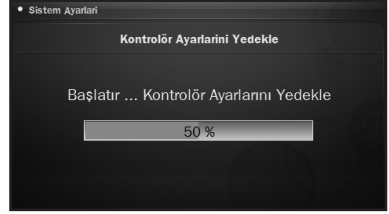
Kumanda ayarlarını geri yüklemek için

Kumandayı yanlış bir biçimde ayarladıysanız veya sıfırladıysanız, geçerli ayarları farklı bir kumandaya yükleyebilirsiniz.

1. Menü ana ekranından <**Güncelle**> seçeneğine basın.

2. <**Kontrolör Ayarlarını Geri Yükle**> seçeneğine basın.

3. <**TAMAM**> seçeneğine basın.
Geri yükleme süreci başlar.

● Sistem Ayarlari

Kontrolör Ayarlarini Geri Yükle

Başlatır ... Kontrolör Ayarlarını Geri Yükle

50 %

Ⓜ ▪ Geri yükleme sırasında USB belleği veya güç kablosunu çıkarmayın. Aksi takdirde kumanda ayarlarının geri yüklenmesi başarısız olabilir.
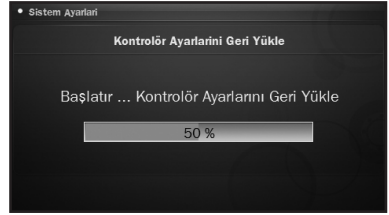
menü ayarı

KUMANDA BILGILERINI KONTROL ETMEK IÇIN

Sistem kumandası modelinin adını veya yazılımının sürümünü kontrol edebilirsiniz.

Durum Ekranı

Kumandanın durumunu kontrol edebilirsiniz.

1. Menü ana ekranından <**Durum**> seçeneğine basın.

2. Kumanda durumunu kontrol edin.

ek
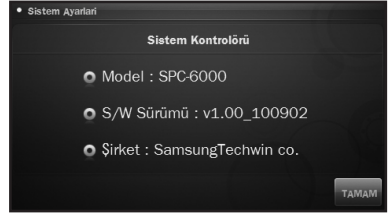
TEKNIK ÖZELLIKLER

Öğe	Açıklama
İletişim Sistemi	RS-485 / 422 (uzaktan kumanda mesafesi: maks. 1km) TTL (matris kontrolü için)
Kontrol edilen ünite sayısı	Maks. 255
Baud Hızı	2,400 ~ 38,400 bps
Uyumluluk	PTZ / DVR / MATRİS / ALICI
Protokol (PTZ)	Samsung-T, Samsung-E, PELCO-D, PELCO-P, Panasonic, Vicon, AD, Honeywell, ELMO, BOSCH, GE
Protokol (DVR)	SVR, SRD, SRP
Protokol (MATRİS)	SMX-25632
Protokol (ALICI)	Samsung-T
Çoklu Dil Desteği	İngilizce, İspanyolca, Fransızca, İtalyanca, Almanca Türkçe, Lehçe, Rusça, Portekizce, İsveççe, Hollandaca, Çekçe, Sırpça, Korece, Çince, Japonca
LCD Ekran	5" TFT LCD + Dokunmatik LCD
USB Bağlantı Noktası	Yedekleme / Depolama, S/W Güncelleme
Video Bağlantı Noktası	BNC Video Girişi, Loop-Through Çıkış
Joystick	PTZ kontrolü (3 eksenli bükülmüş zoom)
Jog Shuttle	Kontrol DVD oynatma
Güç	DC 12V, Maks. 4W
Çalışma Sıcaklığı	0°C ~ 40°C
Çalışma Nem Oranı	%10 ~ 70 (Yoğunlaşmayan)
Boyutlar	459,1 (G) x 59,1 (Y) x 177,9 (D) mm
Ağırlık	Yaklaşık 1,5 kg (adaptör dahil)

ek

S & C

Sorun	Eylem
Sistem kumandasına bağlanamıyorum.	• RS-485 bağlantı kablosunun düzgün bir biçimde takılıp takılmadığını kontrol edin. • İletişim durumu, iletişim hattındaki bir parazit nedeniyle düzensizse, cihazın G bağlantı noktasını, SPC-6000'in G bağlantı noktasına bağlayın.
	• Sistem kumandası adresinin düzgün bir biçimde belirtilip belirtilmediğini kontrol edin. • Adresi belirtmek için "**Menü ayarı**" bölümündeki "**Kumanda Ayarı**" kısmına bakın. (► sayfa 35)
USB bellek düzgün bir biçimde tanınmadı.	• USB belleğin düzgün bir biçimde çalışıp çalışmadığını kontrol edin. • Yalnızca bir USB bellek kullanın ve yeniden deneyin.

✐ ■ Sistem kumandasının LCD paneli sarf malzemesidir.
Paneli satın almak için satıcıyla veya müşteri hizmetleriyle irtibat kurun.

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Version 2.1, February 1999

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However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that

(1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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