SAMSUNG

DIGITAL
VIDEO RECORDER

SPR-7116/7416
UserGuide

SAMSUNG
ELECTRONICS

Please read this manual thoroughly before use, and keep it handy for future reference.

RoHS compliant
Samsung Electronics

NOTICE

This is a user guide for SPR Smart System.
This guide gives you SPR Smart System's external spec, name,
PAN/TILT Control, the way of attaching peripheral devices and
configuration.

☑ The copyright of this manual belongs to Samsung Electronics Co., Ltd.

☑ It is prohibited to copy this manual without permission.

☑ Any damage or break owing to carelessness is out of our warranty service.

☑ Should you need open the system for extention or repairing, it is recommended
   that you ask for an engineer's assistance by contacting the dealer you bought it
   or Samsung Electronics Co., Ltd.

☑ This product has certification for domestic and industrial use. Also, it has taken
   CE for Europe, FCC for the U.S.

Samsung Eco-mark
The Samsung's own Eco mark helps consumers to easily understand that Samsung develops eco-friendly products. This mark represents Samsung's continuous effort to develop eco-friendly products.
RoHS compliant
 Our product complies with "The Restriction Of the use of certain Hazardous Substances in electrical and electronic equipment", and we do not use the 6 hazardous materials-Cadmium (Cd), Lead(Pb), Mercury(Hg), Hexavalent Chromium (Cr+6), Poly Brominated Biphenyls(PBBs), Poly Brominated Diphenyl Ethers(PBDEs)-in our products.

WEEE Symbol Information

English
Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Deutsch
Korrekte Entsorgung dieses Produkts
(Elektromüll)

(Anzuwenden in den Ländern der Europäischen Union und anderen euroäischen Ländern mit einem separaten Sammelsystem)

Die Kennzeichnung auf dem Produkt bzw. auf der dazugehörigen Literatur gibt an, dass es nach seiner Lebensdauer nicht zusammen mit dem normalen Haushaltsmüll entsorgt werden darf. Entsorgen Sie dieses Gerät bitte getrennt von anderen Abfällen, um der Umwelt bzw. der menschlichen Gesundheit nicht durch unkontrollierte Müllbeseitigung zu schaden. Recyceln Sie das Gerät, um die nachhaltige Wiederverwertung von stofflichen Ressourcen zu fördern.

Private Nutzer sollten den Händler, bei dem das Produkt gekauft wurde, oder die zuständigen Behörden kontaktieren, um in Erfahrung zu bringen, wie sie das Gerät auf umweltfreundliche Weise recyceln können.

Gewerbliche Nutzer sollten sich an Ihren Lieferanten wenden und die Bedingungen des Verkaufsvertrags konsultieren. Dieses Produkt darf nicht zusammen mit anderem Gewerbemüll entsorgt werden.

Français
Comment éliminer ce produit
(déchets d'équipements électriques et électroniques)

(Applicable dans les pays de l'Union Européen et aux autres pays européens disposant de systémes de collecte sélective)

Ce symbole sur le produit ou sa documentation indique qu'il ne doit pas être éliminé en fin de vie avec les autres déchets ménagers. L'élimination incontrôlée des déchets pouvant porter préjudice à l'environnement ou à la santé humaine, veuillez le séparer des autres types de déchets et le recycler de façon responsable. Vous favoriserez ainsi la réutilisation durable des ressources matérielles.

Les particuliers sont invités à contacter le distributeur leur ayant vendu le produit ou à se renseigner auprès de leur mairie pour savoir où et comment ils peuvent se débarrasser de ce produit afin qu'il soit recyclé en respectant l'environnement.

Les entreprises sont invitées à contacter leurs fournisseurs et à consulter les conditions de leur contrat de vente. Ce produit ne doit pas être éliminé avec les autres déchets commerciaux.

Italiano
Corretto smaltimento del prodotto
(rifiuti elettrici ed elettronici)

(Applicabile in i paesi dell'Unione Europea e in quelli con sistema di raccolta differenziata

Il marchio riportato sul prodotto o sulla sua documentazione indica che il prodotto non deve essere smaltito con altri rifiuti domestici al termine del ciclo di vita. Per evitare eventuali danni all'ambiente o alla salute causati dall'inopportuno smaltimento dei rifiuti, si invita l'utente a separare questo prodotto da altri tipi di rifiuti e di riciclarlo in maniera responsabile per favorire il riutilizzo sostenibile delle risorse materiali.

Gli utenti domestici sono invitati a contattare il rivenditore presso il quale è stato acquistato il prodotto o l'ufficio locale preposto per tutte le informazioni relative alla raccolta differenziata e al riciclaggio per questo tipo di prodotto.

Gli utenti aziendali sono invitati a contattare il proprio fornitore e verificare i termini e le condizioni del contratto di acquisto. Questo prodotto non deve essere smaltito unitamente ad altri rifiuti commerciali.

Español
Eliminación correcta de este producto
(material eléctrico y electrónico de descarte)

(Aplicable en la Unión Europea y en países europeos con sistemas de recogida selectiva de residuos)

La presencia de esta marca en el producto o en el material informativo que lo acompaña, indica que al finalizar su vida útil no deberá eliminarse junto con otros residuos domésticos. Para evitar los posibles daños al medio ambiente o a la salud humana que representa la eliminación incontrolada de residuos, separe este producto de otros tipos de residuos y recíclelo correctamente para promover la reutilización sostenible de recursos materiales.

Los usuarios particulares pueden contactar con el establecimiento donde adquirieron el producto, o con las autoridades locales pertinentes, para informarse sobre cómo y dónde pueden llevarlo para que sea sometido a un reciclaje ecológico y seguro.

Los usuarios comerciales pueden contactar con su proveedor y consultar las condiciones del contrato de compra. Este producto no debe eliminarse mezclado con otros residuos comerciales.

Netherlands
Correcte verwijdering van dit product
(elektrische & elektronische afvalapparatuur)

Dit merkteken op het product of het bijbehorende informatiemateriaal duidt erop dat het niet met ander huishoudelijk afval verwijderd moet worden aan het einde van zijn gebruiksduur. Om mogelijke schade aan het milieu of de menselijke gezondheid door ongecontroleerde afvalverwijdering te voorkomen, moet u dit product van andere soorten afval scheiden en op een verantwoorde manier recyclen, zodat het duurzame hergebruik van materiaalbronnen wordt bevorderd.

Huishoudelijke gebruikers moeten contact opnemen met de winkel waar ze dit product hebben gekocht of met de gemeente waar ze wonen om te vernemen waar en hoe ze dit product milieuvriendelijk kunnen laten recyclen.

Zakelijke gebruikers moeten contact opnemen met hun leverancier en de algemene voorwaarden van de koopovereenkomsten nalezen. Dit product moet niet worden gemengd met ander bedrijfsafval voor verwijdering.

Denmark
Korrekt affaldsbortskaffelse af dette produkt
(elektrisk & elektronisk udstyr)

Mærket på dette produkt eller i den medfølgende dokumentation betyder, at produktet ikke må bortskaffes sammen med almindeligt husholdningsaffald efter endt levetid. For at undgå skadelige miljø- eller sundhedspåvirkninger på grund af ukontrolleret affaldsbortskaffelse skal dette produkt bortskaffes særskilt fra andet affald og indleveres behørigt til fremme for bæredygtig materialegenvinding.

Hjemmebrugere bedes kontakte forhandleren, hvor de har købt produktet, eller den lokale myndighed for oplysning om, hvor og hvordan de kan indlevere produktet med henblik på miljøforsvarlig genvinding.

Erhvervsbrugere bedes kontakte leverandøren og læse betingelserne og vilkårene i købekontrakten. Dette produkt bør ikke bortskaffes sammen med andet erhvervsaffald.

Republic of Ireland (Gaelic)
Diúscairt Cheart an Táirge Seo
(Trealamh Leictreach agus Leictreonach Dramhaíola)

Léiríonn an mharcáil seo atá ar an táirge nó sa litríocht a thagann leis, nár chóir é a dhiúscairt le dramhaíl tí eile ag deireadh a shaoil oibre. Chun cosaint i gcoinne dochar don chomhshaol nó do shláinte an duine, a d'fhéadfadh bheith mar thoradh ar an ndiúscairt dramhaíola neamhtheoranta, scar an dramhaíl seo ó chineálacha eile dramhaíola le do thoil agus déan athchursáil fhreagrach air chun athúsáid inmharthana na hacmhainní ábhartha a chur chun cinn.

Ba chóir dóibh siúd a úsáideann an trealamh sa bhaile dul i dteagmháil leis an díoltóir ónar cheannaigh siad an táirge seo, nó lena n-oifig áitiúil Rialtais, ar mhaithe le sonraí a fháil faoi cá háit agus cathain is féidir athchúrsáil atá slán ó thaobh an chomhshaoil de a dhéanamh ar an táirge seo.

Ba chóir dóibh siúd a úsáideann an trealamh seo ina ngnó dul i dteagmháil leis a soláthróir agus téarmaí agus coinníollacha an chonartha ceannaigh a sheiceáil. Níor chóir an táirge seo a chur le dramhaíl eile tráchtála agus diúscairt á déanamh.

Slovakia
Správna likvidácia tohoto výrobku
(Elektrotechnický a elektronický odpad)

Toto označenie na výrobku alebo v sprievodnej brožúre hovorí, že po skončení jeho životnosti by nemal byť likvidovaný s ostatným odpadom. Prípadnému poškodeniu životného prostredia alebo ľudského zdravia môžete predísť tým, že budete takéto typy výrobkov oddeľovať od ostatného odpadu a vrátite ich na recykláciu.

Používatelia v domácnostiach by pre podrobné informácie, ako ekologicky bezpečne naložiť s týmto výrobkom, mali kontaktovať buď predajcu, ktorý im výrobok predal, alebo príslušný úrad v okolí ich bydliska.

Priemyselní používatelia by mali kontaktovať svojho dodávateľa a preveriť si podmienky kúpnej zmluvy. Tento výrobok by nemal byť likvidovaný spolu s ostatným priemyselným odpadom.

Portugal
Eliminação Correcta Deste Produto
(Resíduo de Equipamentos Eléctricos e Electrónicos)

Esta marca, apresentada no produto ou na sua literatura indica que ele não deverá ser eliminado juntamente com os resíduos domésticos indiferenciados no final do seu período de vida útil. Para impedir danos ao ambiente e à saúde humana causados pela eliminação incontrolada de resíduos deverá separar este equipamento de outros tipos de resíduos e reciclá-lo de forma responsável, para promover uma reutilização sustentável dos recursos materiais.

Os utilizadores domésticos deverão contactar ou o estabelecimento onde adquiriram este produto ou as entidades oficiais locais para obterem informações sobre onde e de que forma podem levar este produto para permitir efectuar uma reciclagem segura em termos ambientais.

Os utilizadores profissionais deverão contactar o seu fornecedor e consultar os termos e condições do contrato de compra. Este produto não deverá ser misturado com outros resíduos comerciais para eliminação.

Hungary
A termék megfelelő leadás
(Elektromos és elektronikus készülékek hulladékkezelése)

A terméken vagy a hozzá tartozó dokumentáción szereplő jelzés arra utal, hogy hasznos élettartama végén a terméket nem szabad háztartási hulladékkal együtt kidobni. Annak érdekeben, hogy megelőzhet legyen a szabálytalan hulladékleadás által okozott környezet- és egészségkárosodás, különítse ezt el a többi hulladéktól, és felelősségteljesen gondoskodjon a hulladék leadásáról, a hulladékanyagok fenntartható szintű újrafelhasználása céljából.

A háztartási felhasználók a terméket forgalmazójától vagy a helyi önkormányzati szervektől kérjenek tanácsot arra vonatkozóan, hová és hogyan vihetik el ez elhasznált terméket a környezetvédelmi szempontból biztonságos hulladékleadás céljából.

Az üzleti felhasználók lépjenek kapcsolatba a forgalmazóval, és vizsgálják meg az adásvételi szerződés feltételeit. A terméket nem szabad leadni kereskedelmi forgalomból származó egyéb hulladékkal együtt.

Lithuania
Tinkamas produkto atliekų tvarkymas
(atitarnavusi elektros ir elektronikos įranga)

Šis ženklas, pateikiamas ant produkto ar jo dokumentacijoje, nurodo, kad pasibaigus produkto tarnavimo laikui, jo negalima išmesti kartu su kitomis buitinėmis atliekomis. Kad būtų išvengta galimos nekontroliuojamo atliekų išmetimo žalos aplinkai arba žmonių sveikatai, ir siekiant skatinti aplinką tausojantį antrinių žaliavų panaudojimą, pašom atskirti jį nuo kitų rūšių atliekų ir atiduoti perdirbti.

Informacijos, kur ir kaip pristatyti šį produktą saugiai perdirbti, privatūs vartotojai turėtų kreiptis arba į parduotuvę, kurioje šį produktą pirko, arba į vietines valdžios institucijas.

Verslo vartotojai turėtų kreiptis į savo tiekėją ir peržiūrėti pirkimo sutarties sąlygas. Šis produktas tvarkant atliekas negali būti sumaišytas su kitomis atliekomis.

Estonia
Õige viis toote kasutusest kõrvaldamiseks
(elektriliste ja elektrooniliste seadmete jäätmed)

Selline tähistus tootel või selle dokumentidel näitab, et toodet ei tohi kasutusaja lõppemisel kõrvaldada koos muude olmejäätmetega. Selleks, et vältida jäätmete kontrollimatu kõrvaldamisega seotud võimaliku kahju tekitamist keskkonnale või inimeste tervisele ning edendada materiaalsete vahendite säästvat taaskasutust, eraldage toode muudest jäätmetest ja suunake taasringlusse.

Kodukasutajad võivad võtta ühendust tarnijaga ning kontrollima ostulepingu tingimusi ja sätteid. Toodet ei tohi panna muude hävitamiseks mõeldud kaubandusjäätmete hulka.

Firmad peaksid võtma ühendust toote müüjatel või keskkonnaametist.

Latvia
Izstrādājuma pareiza likvidēšana
(nolietotas elektriskās un elektroniskās ierīces)

Uz izstrādājuma vai tam pievienotajās instrukcijās dotais marķējums norāda, ka to nedrīkst likvidēt kopā ar citiem sadzīves atkritumiem pēc tā ekspluatācijas laika. Lai novērstu videi un cilvēku veselībai iespējamo kaitējumu, ko ir saistīts ar nekontrolējamu atkritumu likvidēšanu, tas jā nošķir no citiem atkritumiem un jāpārstrādā, lai sekmētu materiālo resursu atbildīgu atkārtotu lietošanu.

Mājsaimniecības lietotājiem jāsazinās vai nu ar veikalu, kurā šis izstrādājums ir pirkts, vai ar pašvaldību, lai iegūtu informāciju par to, kā un kur var nodot šo izstrādājumu, lai garantētu ekoloģiski drošu reciklēšanu.

Rūpnieciskajiem lietotājiem jāsazinās ar piegādātāju un jāpārbauda pirkuma līguma nosacījumi. Šo izstrādājumu nedrīkst sajaukt ar citiem likvidējamiem rūpnieciskajiem atkritumiem.

Poland
Prawidłowe usuwanie produktu
(zużyty sprzęt elektryczny i elektroniczny)

Oznaczenie umieszczone na produkcie lub w odnoszących się do niego tekstach wskazuje, że produktu po upływie okresu użytkowania nie nale zy usuwać z innymi odpadami pochodzącymi z gospodarstw domowych. Aby uniknąć szkodliwego wpływu na środowisko naturalne i zdrowie ludzi wskutek niekontrolowanego usuwania odpadów, prosimy o oddzielenie produktu od innego typu odpadów oraz odpowiedzialny recykling w celu promowania ponownego użycia zasobów materialnych jako stałej praktyki.

W celu uzyskania informacji na temat miejsca i sposobu bezpiecznego dla środowiska recyklingu tego produktu użytkownicy w gospodarstwach domowych powinni skontaktować się z punktem sprzedaży detalicznej, w którym dokonali zakupu produktu, lub z organem władz lokalnych.

Użytkownicy w firmach powinni skontaktować się ze swoim dostawcą i sprawdzić warunki umowy zakupu. Produktu nie należy usuwać razem z innymi odpadami komercyjnymi.

Czech Republic
Správná likvidace tohoto produktu
(Zničení elektrického a elektronického zařízení)

Tato značka zobrazená na produktu nebo v dokumentaci znamená, že by neměl být používán s jinými domácími zařízeními po skončení svého funkčního období. Aby se zabránilo možnému znečištění životního prost ředí nebo zranění člověka díky nekontrolovanému zničení, oddělte je prosíme od dalších typů odpadů a recyklujte je zodpovědně k podpoře opětovného využití hmotných zdrojů.

Členové domácnosti by měli kontaktovat jak prodejce, u něhož produkt zakoupili, tak místní vládní kancelář, ohledně podrobností, kde a jak mů žete tento výrobek bezpečně vzhledem k životnímu prostředí recyklovat.

Obchodníci by měli kontaktovat své dodavatele a zkontrolovat všechny podmínky koupě. Tento výrobek by se neměl míchat s jinými komerč ními produkty, určenými k likvidaci.

Sweden
Korrekt avfallshantering av produkten
(elektriska och elektronska produkter)

Denna markering på produkten och i manualen anger att den inte bör sorteras tillsammans med annat hushållsavfall när dess livstid är över. Till förebyggande av skada på miljö och hälsa bör produkten hanteras separat för ändamålsenlig återvinning av dess beståndsdelar.

Hushållsanvändare bör kontakta den återförsäljare som sålt produkten eller sin kommun för vidare information om var och hur produkten kan återvinnas på ett miljösäkert sätt.

Företagsanvändare bör kontakta leverantören samt verifiera angivna villkor i köpekontraktet. Produkten bör inte hanteras tillsammans med annat kommersiellt avfall.

Greece
Σωστή Διάθεση αυτού του Προϊόντος
(Απορρίμματα Ηλεκτρικού & Ηλεκτρονικού Εξοπλισμού)

Τα σήματα που εμφανίζονται επάνω στο προϊόν ή στα εγχειρίδια που το συνοδεύουν, υποδεικνύουν ότι δεν θα πρέπει να ρίπτεται μαζί με τ υπ όλοιπα οικιακά απορρίμματα μετά το τέλος του κύκλου ζωής του. Προκε ιμένου να αποφευχθούν ενδεχόμενες βλαβερές συνέπειες στο περιβάλλ ον ή την υγεία εξαιτίας της ανεξέλεγκτης διάθεσης απορριμμάτων, σας παρακαλούμε να το διαχωρίσετε από άλλους τύπους απορριμμάτων και να το ανακυκλώσετε, ώστε να βοηθήσετε στην βιώσιμη επαναχρησιμοπ οίηση των υλικών πόρων.

Οι οικιακοί χρήστες θα πρέπει να έλθουν σε επικοινωνία είτε με τον πω λητή από' ότου αγόρασαν αυτό το προϊόν, είτε τις κατά τόπους υπηρεσίε ς, προκειμένου να πληροφορηθούν τις λεπτομέρειες σχετικά με τον τόπ ο και τον τρόπο με τον οποίο μπορούν να δώσουν αυτό το προϊόν για α σφαλή προς το περιβάλλον ανακύκλωση.

Οι επιχειρήσεις-χρήστες θα πρέπει να έλθουν σε επαφή με τον προμηθ ευτή τους και να ελέγξουν τους όρους και τις προϋποθέσεις του συμβολ αίου πώλησης. Το προϊόν αυτό δεν θα πρέπει να αναμιγνύεται με άλλα συνηθισμένα απορρίμματα προς διάθεση.

Slovenia
Ustrezno odstranjevanje tega izdelka
(odpadna električna in elektronska oprema)

Oznaka na izdelku ali spremljevalni dokumentaciji pomeni, da ga na koncu uporabne dobe ne smemo odstranjevati skupaj z drugimi gospodinjskimi odpadki. Da bi preprečili morebitno tveganje za okolje ali zdravje človeka zaradi nenadzorovanega odstranjevanja odpadkov, izdelek ločite od drugih vrst odpadkov in ga odgovorno reciklirajte ter tako spodbudite trajnostno ponovno uporabo materialnih virov.

Podjetja naj pokličejo dobavitelja in preverijo pogoje nabavne pogodbe. Tega izdelka pri odstranjevanju ne smete mešati z drugimi gospodarskimi odpadki.

Gospodinjski uporabniki naj se za podrobnosti o tem, kam in kako lahko odnesejo ta izdelek na okolju varno recikliranje, pokličejo trgovino, kjer so izdelek kupili, ali lokalni vladni urad.

Finland
Tämän tuotteen turvallinen hävittäminen
(elektroniikka ja sähkölaitteet)

Oheinen merkintä tuotteessa tai tuotteen oheismateriaalissa merkitsee, että tätä tuotetta ei tule hävittää kotitalousjätteen mukana sen elinkaaren päätyttyä. Hallitsemattomasta jätteenkäsittelystä ympäristölle ja kansaanihmisten terveydelle aiheutuvien vahinkojen välttämiseksi tuote tulee käsitellä muista jätteistä erillään. Jäte on hyvä kierrättää raaka-aineiksi kestävän ympäristökehityksen takia.

Kotitalouskäyttäjien tulisi ottaa yhteyttä tuotteen myyneeseen jälleenmyyjään tai paikalliseen ympäristöviranomaiseen, jotka antavat lisätietoja tuotteen turvallisista kierrätysmahdollisuuksista

Yrityskäyttäjien tulisi ottaa yhteyttä tavarantoimittajaan ja selvittää hankintasopimuksen ehdot. Tätä tuotetta ei tule hävittää muun kaupallisen jätteen seassa.

Norway
Korrekt avhending av dette produkt
(Avfall elektrisk og elektronisk utstyr)

Denne merkingen som vises på produktet eller dens dokumentasjon, indikerer at den ikke skal kastes sammen med annet husholdningsavfall ved slutten av sin levetid. For å hindre mulig skade på miljøet eller menneskelig helse fra ukontrollert avfallsavhending, vennligst atskill dette fra andre typer avfall og resirkuler det ansvarlig for å fremme bærekraftig gjenbruk av materielle ressurser.

Husholdningsbrukere bør kontakte enten forhandleren de kjøpte produktet av, eller lokale myndigheter, for detaljer om hvor og hvordan de kan frakte denne artikkelen for miljømessig trygg resirkulering.

Forretningsbrukere bør kontakte sin leverandør og undersøke vilkårene i kjøpekontrakten. Dette produktet skal ikke blandes med annet kommersielt avfall som skal kastes.

Notice before installation

[Please check these out before using the system.]

☑ Avoid any place that has high moisture, dust or black dirt.

☑ Avoid any place that has direct sun light or heat. High temperature is not good for the product.

☑ Keep product away from a electric shock or magnetic substance.

☑ Avoid high or low temperature.(Recommended temperature is 5 °C ~33°C)

☑ Be careful not to drop any conducting material into the ventilation hole.

☑ Turn off the system before installation.

☑ Ensure enough space for the cables at the rear of the system.

☑ Avoid any place that may shake the product.

☑ Use the product in areas where it ventilates well.

☑ Radio, TV or Radio devices might be harmful to the system.

☑ Don't disassemble the system on your own.

☑ Do not put any heavy objects on top of the product.

☑ This device designed to operate under Max. 33°C. When you install this device in the rack, please consider the Max. ambient temperature. Please install this device Proper ambient temperature of all park.

☑ CAUTION : When you install this device in the rack, the operating ambient temperature may be greater than room ambient. Please consider this condition and simulate the Max. Temperature and install in an environment Compatible temperature.

☑ Reduced Air Flow : Installation of this device in a rack should be such that the amount of air flow required for safe operation of this device is not compromised. Please provide enough space to get the proper air flow.

☑ Mechanical Loading - Mounting of this device in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

☑ Circuit Overloading : Please read the rating in the nameplate and consider appropriate power supply and supply wiring.

☑ When you are using like a power strips except direct connections to the branch circuit, please make sure to connect reliable earthing maintained.

> **CAUTION** : Danger of explosion if battery is incorrectly replaced. Replace Only with the same or equivalent type recommended by the manufacturer. Dispose of user batteries according to the manufacturer's instructions
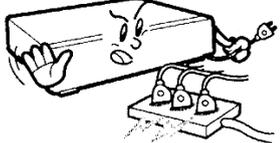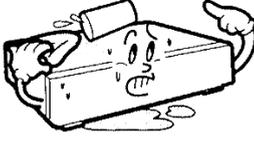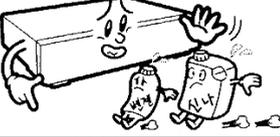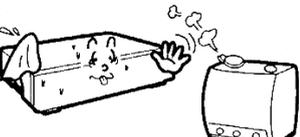
Notice for Safety

This is for the safety of customer's property and life. Please read carefully and follow the direction.

Warning / Notice

| ⚡ Warning	Message for problem that might cause death or serious casualty.	⚠ Notice	Message for problem that might cause hurt or damage to property.

⚡ Warning

Make sure to turn off the system before you install and do not use many plug in one socket. • It can cause overheat, fire or electric shock.	Do not put glass with water, coffee or drink on the product. • Any spilt drink can cause problem in the product.
Do not bend power cable too much or let it peeled. • It might cause fire.	Please make sure the systems is located in a clean area and make it dried. Do not use wet towel or chemical product to clean the system. • It might hurt the surface of the product or cause trouble and electric shock.
Do not locate in the area where high humidity or dust exist. • It might cause electric shock or fire.	Do not plug out the power cable by grabbing with wet hands or too much force. Do not plug in if the socket is loose. • It might cause fire or electric shock.
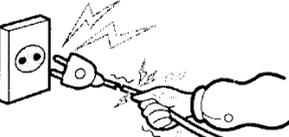
⚡ Warning

Do not disassemble or repair the system by yourself since the system has high voltage part inside.

• It might cause fire, electric shock or hurt.
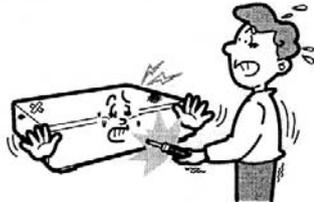
Locate the product in shade where proper temperature remains and avoid place next to hot object. Do not place the equipment or device in the place people visits a lot.

• It might cause fire.

The bottom surface must be moisture-free. And, be cautious about any possible delicate facters, such as ungrounded extension cable, abraded power cord, lack of safe grounding. When any problem occurs, please consult to an expert .

• It might cause fire or electric shock.

Position it in an open space with flat surface, and do not stand it on end or diagonally.

• If it falls down, it might cause hurt.

The cables of the power cable connectors, video signal input/output signal, Serial Port and LAN Cable connectors on the back of the system can be pressed down and damaged, if it is set up too close to the wall. Maintain the distance of 15 cm between back of the main body and the wall.

• It might cause fire, electric shock or hurt.

The fluctuation of operation voltage must be within 10% of the regulation voltage, and the electric outlet must be always ground. Insulation devices, such as, hair dryers, irons, refrigerators, etc., must not be co-used in the same outlet with this system is recommended for stable power supply.

• It might cause overheat, fire or electric shock.
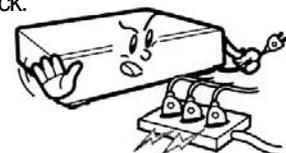
⚡ Warning

Replace the battery with the product that the manufacturer appointed or the equal product. Dispose the battery according to the manufacturer's instructions.

• It might cause an explosion.

If HDD is full, change the set-up to keep up with recording and check again if you allow the data to be erased.

(Refer to the "The record is not available" item in the fault report, the supplement.)

We do not bear the responsibility for the data corruption caused by the user's lack of care.

When properly connected to the HDD, the LED status indicator in front of the system blinks. Be sure that the LED status indicator blinks continuously.

If the life of the HDD which stores the data ends, video data to be stored can be damaged and unrecoverable. When the screen is broken while playing the data stored in HDD in the midst of recording, please request a service centeror the place you bought it to replace the HDD promptly.

We do not bear the responsibility for the data corruption caused by the user's lack of care.
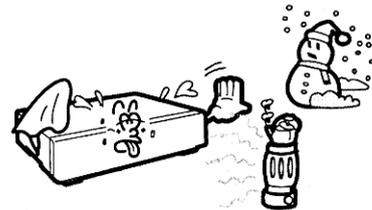
⚠ Notice

Avoid places with strong magnetic or electrical field, severe impact or places near a radio or TV.

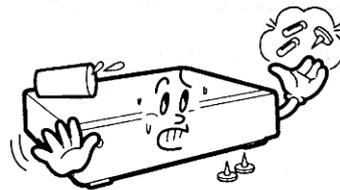Keep it away from magnetic sources, electric wave or severe tremor.
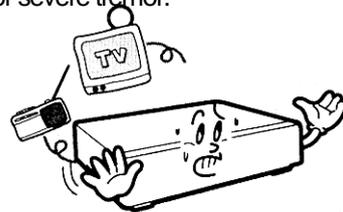
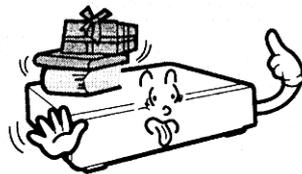Keep it under proper temperature and humidity conditions.

Maintain a low level of humidity and the operation temperature of 0 ℃ to 33℃.

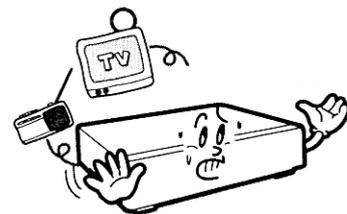Be sure to remove the foreign substance inside the product. It might cause damage.

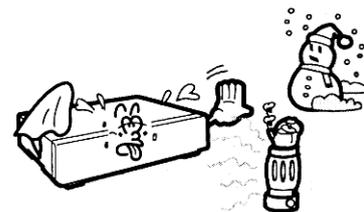Do not put any heavy items on the product.
• It might cause damage.

Well ventilated place is recommended.
• Set up the system, leaving the space of 15 cm or over on the back and 5 cm or over on the sides.
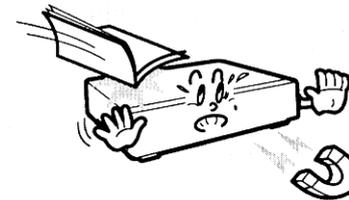
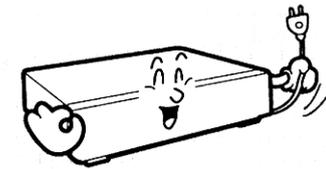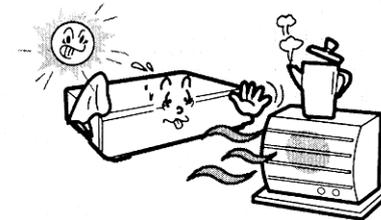Please place the machine in a flat and safe place to avoid risk of damage occurring.

⚠ Notice

Place it away from severe impact or shock. It might cause damage to the equipment.
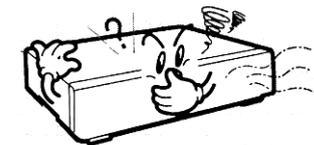
Use a grounded power cable only.

Place it away from direct sunlight or the heat.

In case it makes weird sound or smell, pull out the power plug instantly and consult to a service center or the store you bought the product from.
• It might cause fire or electric shock.

Ventilate the system operating room well and fix the cover of the body firmly to prevent the trouble caused by surrounding factors.

Ask a service center to examine the system regularly to maintain system efficiency.

For a stable power supply, it is recommended to use AVR(Automatic Voltage Regulator). By winding Core-Ferrite, you can prevent the connector connected to this equipment from producing an effect on EMI.

This is only a recommendation-not essential.

We do not bear the responsibility for the damage caused by the user's lack of care.

Product Contents

[Check to make sure the box has everything below.]

Contact your dealer if there is any missed item.

(Optional: Monitor- Recommended monitor is one that supports the resolution of at least 1024×768, 60Hz)
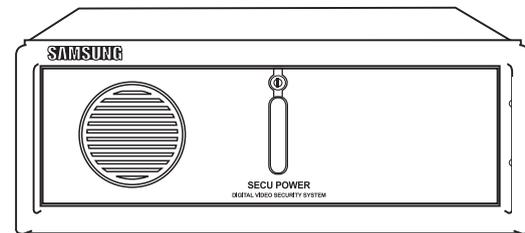
SPR SMART SYSTEM
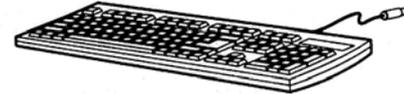
Key Board

Mouse

Key

RS-232 Serial Port Cable

SPR Smart Viewer Program CD

Power Cable

User guide

RS-485 Communication conversion cable
(used for PAN/TILT CAMERA)

Monitor(Option)

Contents

I

System Outline

1 Product Introduction

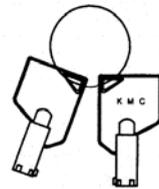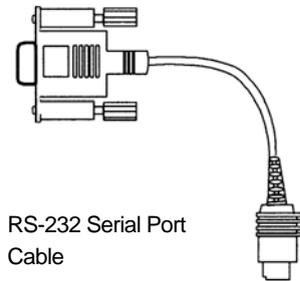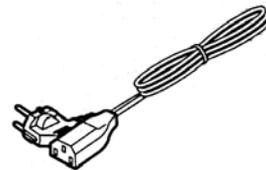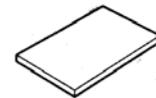Digital Video Recorder (SPR-7116/7416) digitally records the video image so it provides   clear image like a picture. It also has a function to record continuously so you don't have to worry about the frequent change of tapes. DVR, therefore, is a video recording surveillance system for the next generation and it is growing very rapidly. In addition to that, it has communication function which enables you to detect remoteness screen even from household and it contains a multi branch of up-to-date function.

Requirement

◢ O/S   : Windows 2000 Professional

◢ CPU   : Intel P-IV 1.5Ghz or more (Depends on situation)

◢ RAM   : 256 MB or more

◢ VGA   : ATI 16MB or more (1024x768, true color)

◢ LAN   : 10Mbps or more

☞ Minimum requirement of SPR-7416 model is as follows:
    CPU : Inter P-IV 2.4 Ghz, Memory : DDR 256MB, VGA : ATI 64MB, LAN : 10/100Mbps

2 Feature

◢ High picture quality, speed, and recording

• Maximum of 30 Frame per second (320X240, standard)
  Resolution:
     - NTSC : 640X480, 320X240, 160X120
     - PAL   : 768X576, 384X288, 192X144

• NTSC method supports various resolution rates - 640X480, 640X240, 320X240 and
  160X120 - and is enabled with monitoring and recording features.
  (Compressed size of recorded file : 640X480 = Approximately 6KB, 640X240 = Approximately
   4.5KB, 320X240 = Approxmately 2.5KB, 160X120 = Approximately 1KB)

• PAL method supports various resolution rates - 768X576, 768X288, 384X288 and
  192X144 - and is enabled with monitoring and recording features.
  (Compressed size of recorded file : 768X576 = Approximately 7KB, 768X288 = Approximately
   5.4KB, 384X288 = Approxmately 3.3KB, 192X144 = Approximately 1KB)

◢ Multi-Channel display and output for multiple sensor/alarm function

• Multi-picture display with 16 cameras

• Multiple recording can be done by each 16 sensors

• Possible to produce several output when an alarm operates

• Outputs 16 contact point alarms.

◢ Several Detection

• 1, 4, 6, 9, and 16 split screen

◢ Recording schedule and Quick search

• User can assign recording schedule by week day, Saturday, Sunday, and holiday.

• Recording table is configured by date, camera, and time to have a grasp of recording
  status.

◪ **Process multiple image**

• Processes image through motion detection

• You may select up to 5 areas per image and control its sensibility.

• Improve image quality (Clear and flexible)

• Zoom in/out

• Adjust brightness

◪ **Warning sound occurs when there is any movement**

• When any movement is captured within selected area, beep sound will occur immediately.

◪ **Auto Control**

• This function is to automatically control 16 channel with setup time.

• This function automatically controls (On/Off) light and siren.

◪ **Watchdog**

• When system is not working normally, this will automatically reboot the system and restore everything back to normal and safe.

◪ **Search from remote area**

• This function enables to search images from remote areas through LAN

• All of 16 DVRs can connect to one specific Remote at once and it detects, searches, and controls each DVR.

◪ **Search Multiple Screen**

• Display images into 1, 4, 9, 16 split screen or into Panorama

◪ **Search Multi-Camera**

• Images that were recorded by multiple cameras can be seen at once

◪ **Audio Recording**

• It simultaneously records and searches a channel with audio.

◪ **How to control external monitor output quality**

• This to gain optimal performance from a long distance installation for the external monitor output via control switch.

◪ **Control from remote area with Camera**

• When using PTZ camera, it remotely controls camera's Pan/Tilt/Zoom.

> ☞ **What is PTZ camera?**
>
> PTZ is abbreviated from Pan/Tilt/Zoom. PTZ camera is different from other normal camera in that it can rotate, adjust, zoom in & out itself.

◪ **Water-Mark**

• When video footage requires a higher level of authentication, digital watermarks can be embedded into digital video images to verify whether the recordings are genuine or have been illegally modified. Authentication can be verified easily using watermarks and would be valid as court evidence if required.

◪ **Emergency Screen Transmission**

• If any movement is captured, then it will automatically connect to the Remote and sent the captured image.

◪ **Output from External monitor**

• Image can automatically be converted to real time image not only from PC monitor but from normal monitor as well.

◪ **Security of System**

• Intentional modification can be made from outsider during operation so the system will auto check the original password to increase security.

◪ **Data Backup**

• Stores back up data using Hard disk, CD-RW, DVD, Network

◪ **Detect Remote Area**

• Detects from Remote area using LAN

II

Multi channel Video Surveillance

1 Mainscreen

State Screen

System Status

Division

Function Select

Alarm/Sensor/Audio toggle button   Camera/Sensor/Alarm/Audio   Screen Division button
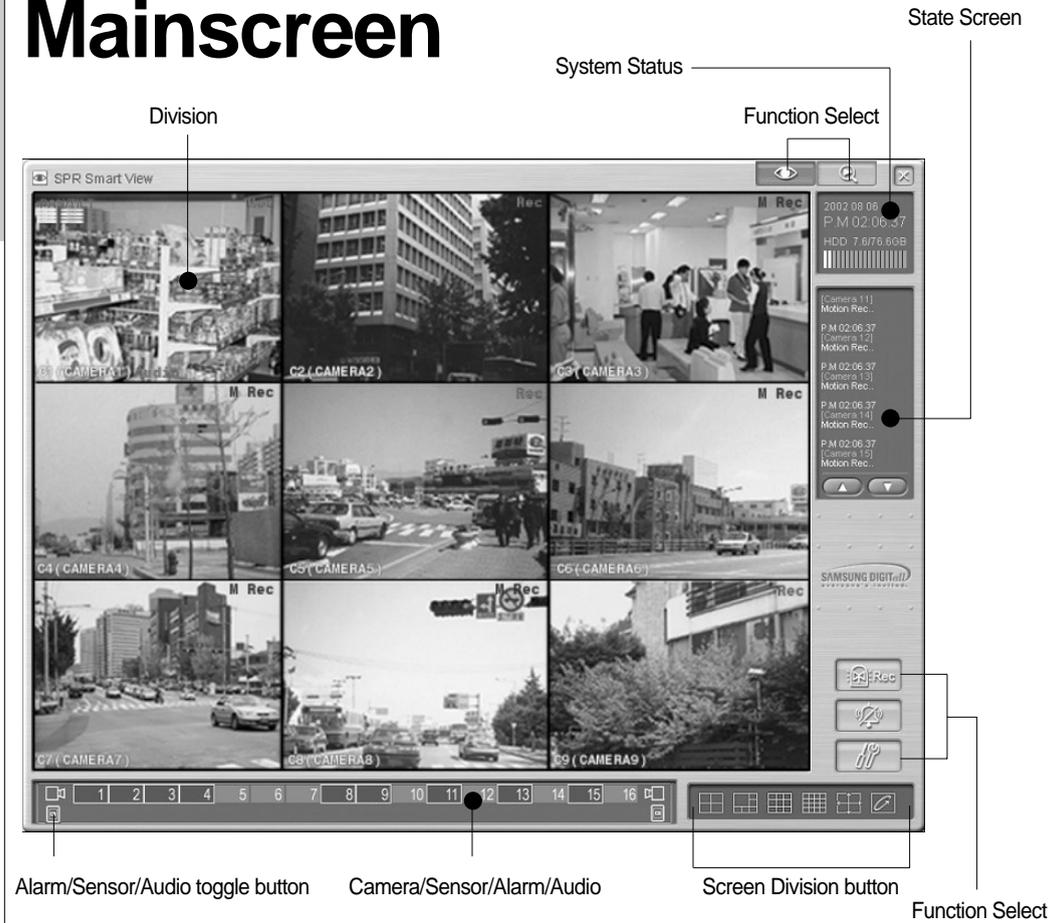
Function Select

Description

◢ **Screen Division**   : Displays the selected camera image

◢ **System Status**   :   Display time/date, HDD usage.

◢ **Screen Division**   : Select the live image under surveillance. Maximum 16 live image can be displayed (1, 4, 6, 9, 16 division, 4division rotation mode is possible.)

◢ **State Screen**   : Display for the status of continuous recording, sensor, alarm, motion, audio or network

◢ **Function Select**   : Emergency recording, alarm off, configuration and displaying recorded image

◢ **Camera/Sensor/Alarm**   : Display status of camera recording, sensor/alarm and audio.

◢ **Alarm/Sensor/Audio**   : Toggle for display and control of alarm/sensor/audio in rotation.

2 Screen Division

Screen division can be done by [Screen Division] button

PTZ camera display — ►PAN/TILT   REC◄ — Recording status

Camera name
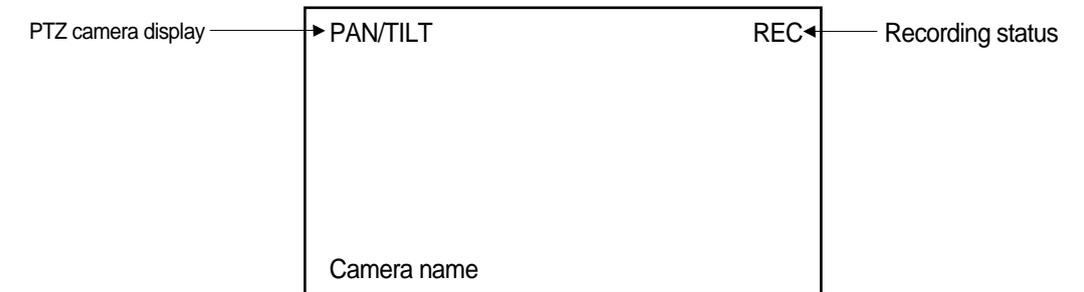
Screen Division

◢ **Camera**   : Display the position of the camera under surveillance. The default value is 1[POSITION1]. But you can modify it in setup.

◢ **Recording Status**   : Display recording status of each camera. For continuous recording in red "Rec", and for motion detection recording in blue "M Rec" and nothing for no recording.

◢ **PTZ camera display**   : When the installed camera is PAN/TILT, displays green "PAN/TILT"

Screen Division

• Screen division can be made in 4, 6, 9, 16, full screen and quad rotation.

 (Screen division type can be different depending on model.)

• Any click on certain camera will give you full screen.

SPR-7416

4ch   6ch   9ch   16ch   full screen rotation

SPR-7116

4ch   9ch   16ch Full ScreenRotation

How to operate

① Click the division button you want.

② Divided screen will appear.

Full screen mode

• Left click on certain image under divided screen will give you full screen of the camera.

• Clicking again on the full screen will give you previous divided screen.

Rotation by division

• Click Rotation button after selecting the screen division button among 4, 6, 9 or full

 screen button.

• Click Rotation button to exit screen rotation mode.

Full screen display

• Full screen mode of divided screen.

• It will look as below.

Exiting Full screen display

• To go to previous mode from "full screen display" press right click.

Empty Screen

• If no camera is connected to the channel or the channel is disabled below logo will

 appear on the screen.

Blue : No camera is connected   Grey : The channel is disabled.

3 State screen

• Display the status of event such as continuous recording, sensor, alarm, motion, audio or
  network connection.
• State screen displays [time of event - camera number - event type]

State screen

Time of event —— P.M 02:06.37
Camera number —— [Camera 13]
Motion Rec.. —— Event type

P.M 02:06.37
[Camera 14]
Motion Rec..

P.M 02:06.37
[Camera 15]
Motion Rec..

Above Event —— ▲   ▼ —— Below event
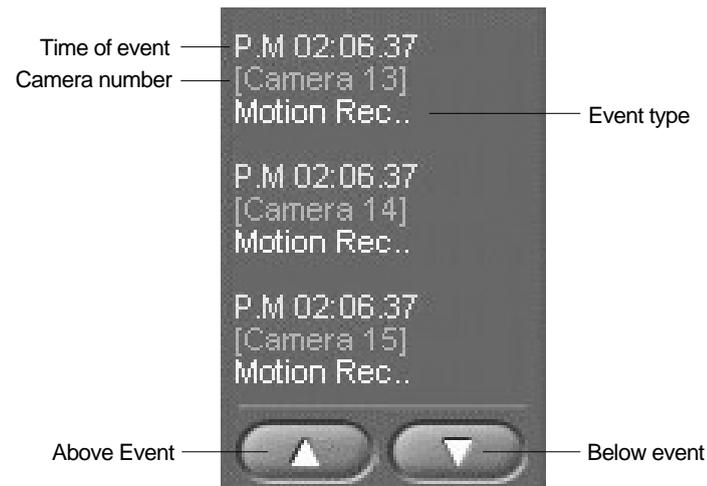
◪ **Camera number**   : Displays the current camera number in order.
◪ **Event movement**   : Use this button to move up and down to see other event

4 Emergency Recording, Alarm off, Setup, Search, Power

Emergency Recording
① You can start recording regardless of recording schedule while monitoring live image.
② All the installed cameras start recording together and "REC" appears on screen.
③ You can stop emergency recording by clicking once more.
④ Recording term is normal term on each camera's setup.

Alarm off
① Stops alarm signal
② Alarm output can be used together with sensor or motion detection and the output
   duration is adjustable.
   ▶ When the button is pressed on : Alarm output is impossible or alarm output is on halt
   ▶ When the button is not pressed : Alarm output is possible

Setup
① Click on this button will bring up setup window.
② Setup windows consist of six windows.
③ Press "OK" button to save adjusted configuration. Press "Cancel" button to cancel the
   adjusted configuration.
④ Password can be used to make it secure.

Search
① Click on this search button execute search mode
② This is used to search recorded data and recording and monitoring is possible during
   search.

Power
① Use this to power off the system.
② Password can be used to make this function secure.

5

PAN/TILT Mode I - Speed Dome

How to PreSet
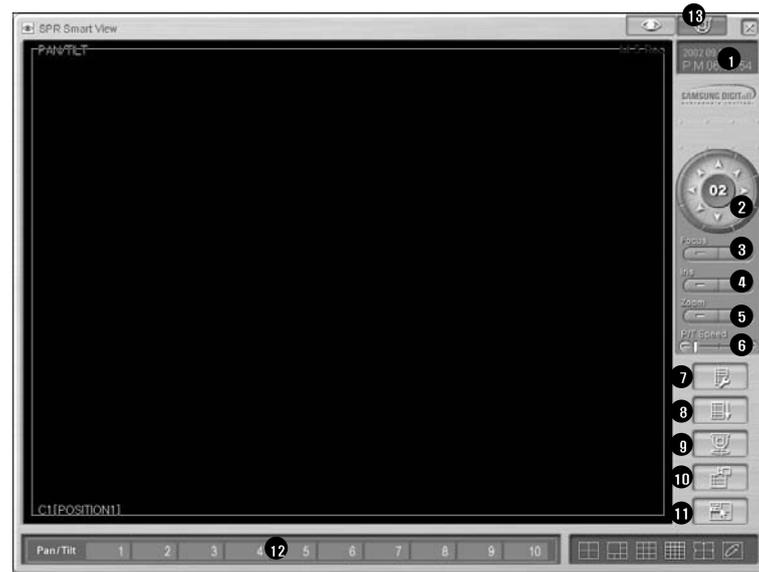
Feature

❶ **Display current date and time**

❷ **PAN/TILT**   **:** controls camera in left and right / up and down / diagonally adjust it

❸ **FOCUS**   **:** adjust focus of the camera lens. (not applied to AUTO FOCUS lens)

❹ **IRIS**   **:** adjust IRIS Out of the camera

❺ **ZOOM**   **:** adjust Zoom In/ Zoom Out of the camera

❻ **P/T Speed**   **:** adjust Speed Dome camera's movement speed

❼ **PreSet setup**   **:** PreSet setup for Auto PAN/TILT function

❽ **Auto Preset**   **:** Camera tours automatically along the configured path. Up, down or left, right button cane stop auto function.

❾ **Auto Pan**   **:** excute Auto Pan

❿ **PATTERN**   **:** excutes Pattern1 which was memorized from camera's pattern for 30 sec.

⓫ **OSD Menu of camera**   **:** OSD menu will appear.

⓬ **PAN/TILT number :** You can move camera toward the position recorded.

⓭ **Display mode**   **:** convert from PAN/TILT mode to Live display mode
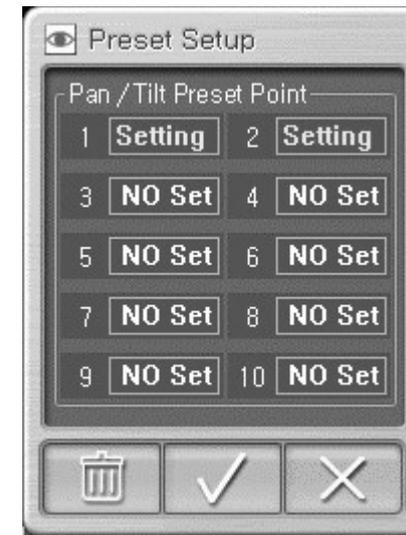
◣ How to Preset

: Location of camera can be appointed from 1 to 10

    ① Change the camera direction to anywhere you want

    ② Select Preset number

    ③ Select " ✔ "

      (It will convert from "Setting" to "No Set" and location of Preset will be specified).

◣ How to delete Preset

: Delete the specified Preset location

    ① Select any Preset number you wish to delete

    ② Select trash can picture icon

      (It will convert from "No Set" to "Setting" and you can relocate preset location.)

6 PAN/TILT Mode Ⅱ - RX Receiver(Already Setup)
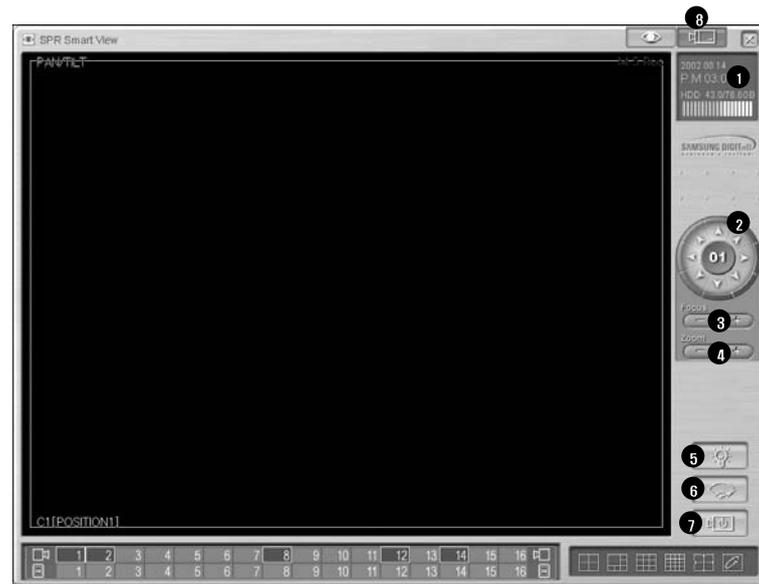
Description

❶ **Indicates current date and time**

❷ **PAN/TILT** : controls camera in left and right / up and down / diagonally adjust it

❸ **FOCUS** : adjust focus of the camera lens. (not applied to AUTO FOCUS lens)

❹ **ZOOM** : adjust Zoom In/ Zoom Out of the camera

❺ **LIGHT** : On/Off function for Camera light

❻ **WIPER** : It operates camera's wiper

❼ **POWER** : To On/Off camera's Power

❽ **Display mode** : convert from PAN/TILT mode to Live display mode

☞ AutoPAN, LIGHT,WIPER,POWER button may be indicated differently based on the type of RX Receiver. (It is because different manufacturer have different functions to support each).

7 Live Audio Data Outputting Feature

① By zooming in one camera channel with the audio feature in the Monitoring modem, the user can output both the video data and the audio data in real time. (If the user zooms in one channel, "Volume" window will appear only for the channel where the audio data is outputted in real time. "Audio" display in the Monitoring mode indicateds that both the video data and audio data are being stored.)

☞ For more information about setting Live Audio Data Outputting feature, see "Audio Setup" in Recording/Display" part.

Ⅲ

Environment Setup

1

Hardware

① Press set up button for system setup

② Screen which inputs password will be appeared. The screen will not be appeared if password is not created.

Hardware [Camera]

Description

◢ **Select Camera :** To decided which camera to use

▶ When Camera Button is pressed: Camera in use

▶ When Camera Button is not pressed: Camera not in use

☞ camera not in use' is selected, it may lower the recording speed, so it is important to select camera which you will use only.

◢ **Name**

: Input the name of place which the camera will be installed

◢ **Sensor**

: Input the sensor number which will be used with each camera

▶ 1 up to 16 external sensors can be connected and if the external sensor activates then linked camera will record the image.

▶ Input additional comma(,) in case several external sensors are to be linked together. For example) When operating external sensors number 2 and 3 and you wish to record the image of number 1 camera, then input "2, 3" on Camera "Sensor" Category.

◢ **P/T**

: Check if the selected camera is PTZ.

In this case, PTZ related equipment should be connected and selected camera will indicate PAN/TILT on top of image.

◢ **P/T Type**

: Model of RX-Receiver and Speed Dome Camera which are compatible with system and RX-Receiver's Control protocol are inputted. Select the model compatible with current model.

◢ **P/T ID**

: Select ID from P/T connected to the system.

◢ **Baud Rate**

: Baud rate might be different depending on the type of PAN/TILT camera. Currently 4800BPS, 9600BPS, 19200BPS and 38400BPS are supported.

◢ **Sensor Preset interworking**

: When data is inputted into a sensor interworking with the corresponding camera, Sensor Preset Interworking feature will move the image preset in Pan/Tilt mode.

☞ For more information about presetting the position for Pan/Tilt mode, see "Presetting" in "Pan/Tlit Mode" part.

Hardware [Sensor]
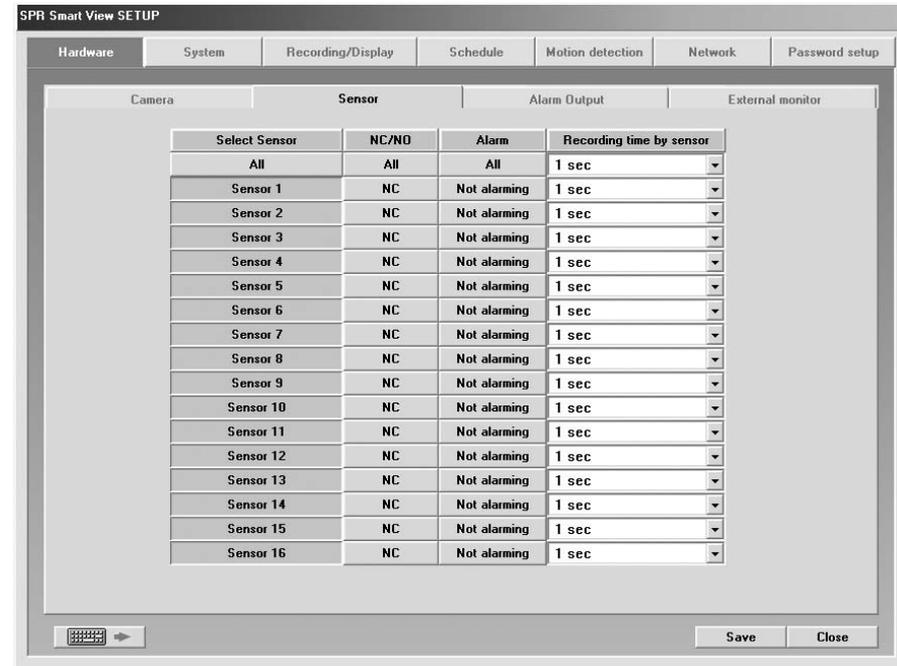
Function

- Record camera image when the external sensor signal is triggered.
- Beep when the external sensor detects any signal.
- Activate external control output on receipt of sensor signal.

Description

◢ **Select Sensor**

: The number of external sensors and input terminal should be correspondent to each other.

◢ **NC/NO**

: Configure Sensor

Each time when the button is clicked it will change to [NC]<->[NO] and vice versa.

(Default is set to [NC])

▶ NC (Normal Close Type sensor)

: While on detection mode, choose this when sensor is near the point of contact

▶ NO (Normal Open Type sensor)

: While on detection mode, choose this when sensor's contract point is open.

◢ **Alarm**

: While on Sensor detection mode, alarm will be on when sensor activates.

If the recording mode is set to "Continuous" beeping will not work.

◢ **Recording time by sensor**

: When there is a signal from sensor connected to system, this function is to setup time

which will record camera's image linked with sensor.

(Possible to setup 1sec, 5sec, 10sec, 20sec, 30sec, 1Min, 2Min, 3Min, or Manual mode.

Factory value is set to 1 sec)

Hardware [Alarm]

SPR Smart View SETUP						
Hardware	System	Recording/Display	Schedule	Motion detection	Network	Password setup

Camera		Sensor		Alarm Output		External monitor

Select Alarm Output	Name	Input Sensor No.	Input Camera No.	Auto ON/OFF time[S]
Alarm 1		0	0	Manual Mode
Alarm 2		0	0	Manual Mode
Alarm 3		0	0	Manual Mode
Alarm 4		0	0	Manual Mode
Alarm 5		0	0	Manual Mode
Alarm 6		0	0	Manual Mode
Alarm 7		0	0	Manual Mode
Alarm 8		0	0	Manual Mode
Alarm 9		0	0	Manual Mode
Alarm 10		0	0	Manual Mode
Alarm 11		0	0	Manual Mode
Alarm 12		0	0	Manual Mode
Alarm 13		0	0	Manual Mode
Alarm 14		0	0	Manual Mode
Alarm 15		0	0	Manual Mode
Alarm 16		0	0	Manual Mode
All				

Save   Close

Function

• It indicates whether alarm will be used or not and setup sensor and time of output produced.

• Output of alarm will be either ON/OFF when any sensor or moving(motion) object is captured.
 It can control light, siren, speaker, and other external equipment.

Description

☒ **Select Alarm**

 : This button is to choose output of alarm terminal you wish to setup.

  ▶ When button is pressed: Appropriate alarm is selected

  ▶ When button is not pressed: Appropriate alarm is not selected

☒ **Name**

 : Input name of alarm to use

☒ **Input Sensor No.**

 : If you want alarm to automatically operate from external sensor, input external sensor that's linked to alarm.

  For example) If you wish to operate number 1 sensor when number 3 activates, choose alarm 1 and input "3" for following item.

☒ **Input Camera No.**

 : In order to activate external alarm by motion detection input the camera number that will detect the movement.

  Ex1.) If you want to activate alarm 1 on detecting movement on camera2 , select Alarm1 and input camera number "2"

☒ **Auto ON/OFF time(S)**

 : Input continuance of operating time for control output in second after sensor signaled.
  (Possible to setup 1sec, 5sec, 10sec, 20sec, 30sec, 1min, 2min, 3min or manual mode.
  Factory value is Manual mode.)

Hardware [External monitor]

SPR Smart View SETUP

Hardware	System	Recording/Display	Schedule	Motion detection	Network	Password setup

Camera	Sensor	Alarm Output	External monitor

Select Camera	Select time(S)	Input Sensor No.	Input Camera No.	Out time by event
All	1	All	All	1
Camera 1	1	NO	NO	
Camera 2	1	NO	NO	
Camera 3	1	NO	NO	
Camera 4	1	NO	NO	
Camera 5	1	NO	NO	
Camera 6	1	NO	NO	
Camera 7	1	NO	NO	
Camera 8	1	NO	NO	
Camera 9	1	NO	NO	
Camera 10	1	NO	NO	
Camera 11	1	NO	NO	
Camera 12	1	NO	NO	
Camera 13	1	NO	NO	
Camera 14	1	NO	NO	
Camera 15	1	NO	NO	
Camera 16	1	NO	NO	

Save Close

Description

- The external monitor function is to transmit the image displayed on DVR monitor by using a general analogue monitor(TV, general monitor).
- You can print the images as sequentially converting the images from the camera from 1 to 16 according to the designed time(sec.) or as the split screen system.
- The images from a given camera can be transmitted to an external monitor as detecting the monitors of images of a camera.
- The images from a given camera can be transmitted to an external monitor as detecting the motion of images of a camera.
- Press the right button of a mouse on the image screen of the camera to be transmitted to an external Monitor on the monitoring screen, and you can transmit the relevant image to an external monitor.

☞ [Notice]
- External moniter setup function only can be applied to external monitor output 1, not external monitor output 2.
- When try to install external monitor through external monitor output connectors on the board, please refer to 5-11. External monitor 2 output quality control

Description

☒ **Select Camera**

: Choose the camera which will produce output by external monitor.

The output will be automatically produced according to setup time.

▶ When button is pressed: Appropriate camera is selected

▶ When button is not pressed: Appropriate camera is not selected

☒ **Select time(S)**

: The output from external monitor should be assigned in second (From 1 sec to 10 sec)

Each camera's image will be displayed by rotation for the designated time (sec).

☒ **Input Sensor No.**

: The image will be displayed onto external monitor when the linked sensor detect signal.

☒ **Input Camera No.**

: The image will be displayed onto external monitor when the camera detects movement.

☒ **Out time by event**

: Setup the duration to display onto external monitor when linked sensor or linked motion detect signal or movement.

(1 sec ~ 10 sec is available, factory value is 2 seconds.)

☒ **External Monitor**

: Select the image display mothed to be transmitted to an external monitor.

▶ Quad mode : Display the image to be transmitted monitor as the split images.

▶ Automatic Selection : Display the selected camera sequentially on an external monitor during the time setting.

☞ [Note]
- When you install the system and the quality is bad on the external monitor please refer to chapter 11 (how to control external monitor output quality) in the manual.

☞ [Note]
- For the SPR-7116 Model, the external monitor connector on IO board is not operational, The external monitor connector on display board must be used.

☞ [Note]
- The same image is displayed on external monitor 2 as on Main monitor(VGA)

2

System

System [System information]

Description

◢ **VIEW code**

: Default is set to 100-001

The value may change at your discretion but anything must be inputted.

☞ When connecting from SPR Smart Viewer(Remote) to SPR Smart View(DVR), it

simultaneously searches and compares site code and Password. If either site code or

password is wrong, then the connection will not be made.

◢ **Location**

: Input name of place where system is installed

◢ **Version**

: Displays the version of installed SPR Series DVR program.

◢ **Model**

: Contains information of program

◢ **Distributor**

: Input name of installer

◢ **Other**

: Input additional information for the system.

◢ **Note**

: Input information related to system repairing.

◢ **Language**

: Input information related to system repairing.

Example) Select one of the languages that you want to use such as Korean, English,

French, Chinese, Italian, Spanish and German, and press [Save].

☞ In the multi-language supports function, select a language, and convert to a monitoring

screen.

Then, the language that you select is applied to the sysem.

◢ **DVR ADDRESS**

: DVR address shall be entered to control DVR by keyboard by interlocking DVR and

SCC-2000 key board.

▶ It is available to enter 0 ~ 255 for DVR address.

▶ In case of controlling the DVR by using SSC-2000 keyboard, SSC-2000 keyboard

should be connected by each number set in DVR address. For further information of

SSC-2000 keyboard, please refer to the product manual of SSC-2000 keyboard.

System [Backup setup]
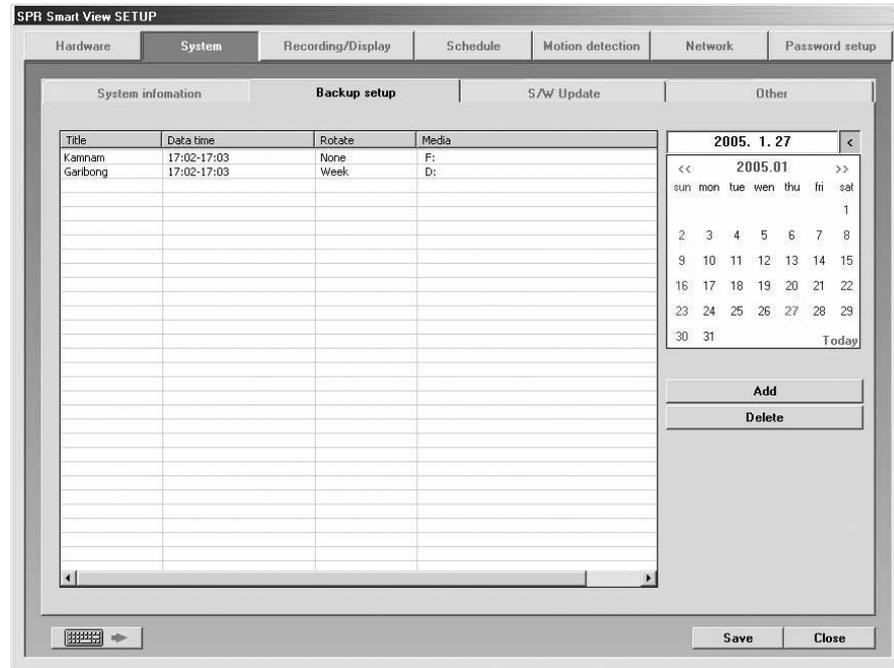
Description

◪ **Backup schedule setup**

• This backup media will show reserved list of backup data which will record data, assigned time for backup, and etc.

• According to assigned backup schedule, it will backup in order.

◪ **Calendar**

• Calendar will appear in Pull-down type like picture above when you click on [>] button indicated beside the current date.

  You can check backup schedule list assigned by days and current date will be displayed if you click "Today".

◪ **Add**

: It adds assigned and rotation time of backup schedule data and data to be recorded in backup media.

◪ **Delete**

: It deletes reserved category from backup schedule setup.

◪ **Setup**

: If [Setup] is not selected, reserved information will not be stored from backup schedule list.

Method to add backup schedule
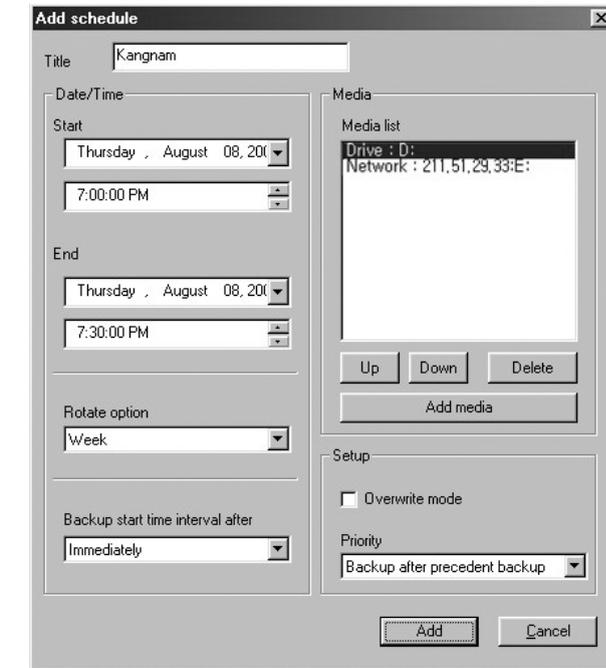
◪ **Title**

: Input name to be add on backup schedule list

◪ **Date/Time**

: Selects start and end time for backup data

▶ It must be setup after current recording time.

▶ If it was setup before current recording time, then it will be ignored and won't be added to the list when [Add] button is clicked.

◪ **Rotate option**

: Repetitive rotation cycle can be maintained by assigning assigned date and Year/Month/Week/None basis for backup data

▶ If [None] is selected, only one day setup can be made for assigned date/time.

◪ **Backup start time interval after**

: After backup data has finish its recording, it assigns when the backup will start after data has finished its backup.

▶ Possible select time will be from 1 to 4 hours

◢ **Media list**

: Choose backup data to record backup media

▶ It can be added up to 8 from media list and if fail to record on initially setup media, it will automatically back up to next media.

▶ Selection should be made as following: HDD, CD-RW, removable drive, Network drive except floppy disk, etc. It supports almost every language oriented logical/physical media.

  You can select remote drive using IP address.

◢ **Up/Down/Delete**

: Priority of backup media can be move from down/Up, and it can delete media that's already setup.

◢ **Add media**

: Backup data can add media which will be recorded

▶ Backup media can be added maximum of 8

◢ **Setup**

① Overwrite mode : This function will record data after deleting old data when there is not enough space available to backup the data

② Priority : Assign priority of backup data

▶ Backup after precedent backup : Wait until the current work is done; start the backup after current backup and waiting data have finished their backup.

▶ Backup after current backup : Start after current work is done; when current data's backup is completed, do not backup the waiting data if the other data was selected first.

◢ **Add**

: Add designated backup to backup schedule list

Method to select backup media
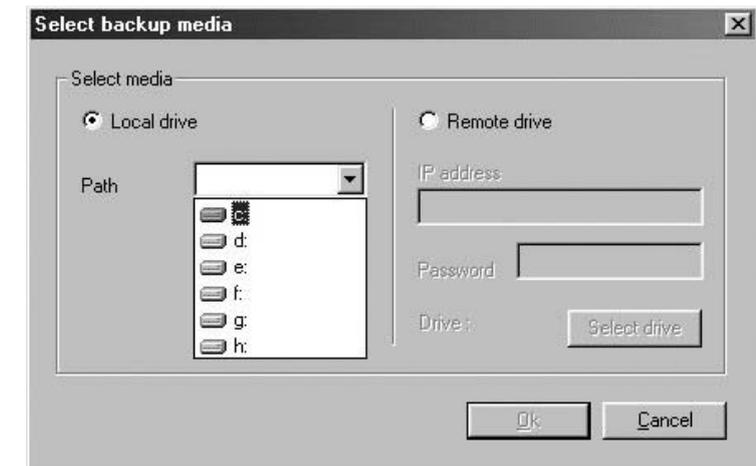
◢ **Local drive**

▶ You can select HDD or removable drive (MOD, DVD-RAM, ZIP, USB HDD etc), CD-RW, and Network drive.

▶ It supports every drive language oriented logical/physical media.

◢ **Remote drive**

: Using IP address, this is used when backup from remove area where SPR Smart Viewer S/W is installed

▶ In order to backup from remote area using IP address, remote PC or File Server must have SPR Smart Viewer S/W installed, and Remote Backup Server program (provided when SPR Smart Viewer S/W is installed) should be executed (refer to Manual for SPR Smart Viewer Program)

▶ In order to do remote backup setup, IP address and password located by remote PC or file server should be the same and remote backup server program should be executed

Remote drive

◤ **Select drive**

 : Input IP address and password and select [Select Drive].

 ▶ In order to connect to Remote backup server for remote backup, remote IP address and

  registered password from Remote Backup server program is needed.

   (If password is not registered,select [Select drive] button after IP address from remote

   site is inputted.)

◤ **Drive path**

 : If connection is made successfully using selected IP address and password, you may

  choose an appropriate backup media drive from remote PC or File server.

◤ **Connection Fail**

 : If selected IP address and password is different or Remote Backup Server program has

  not been executed from remote PC or File Server, then connection will fail and you may

  not be able to choose backup media drive.

Indication of Backup status

◤ **Backup**

 : While backup is progressing, animated icon GO will appear on top of screen. When

  you double click on it, you can check on current data's backup progressing process and

  waiting backup data list.

 ▶ Click [Hide]Button to close backup window

System [S/W Update]

Description

When [S/W Update] is selected, Intelli Upgrade window will be executed to let you choose new package for program version. This function is to upgrade to a new version that's stored in hard disk or joint network folder.

Description

◣ **Select Package directory**

▶ Click [OK] after selecting hard disk or joint network folder which is store in a new version

▶ Appropriate folder must include package folder(Data1, Data2, Data3, Data-a, Data-b, etc.) or all files from package folder must be included in one folder.

☞ When upgrading to a new version using Intelli Upgrade, upgrading does not support floppy diskette. Therefore, we recommend you to upgrade after copying the whole media or on a hard diskette.

☞ If there is no file or package folder in certain folder due to a wrong folder designation, or if the damage had occur to the file, then it will not be considered as a normal package so the program will not upgrade normally.
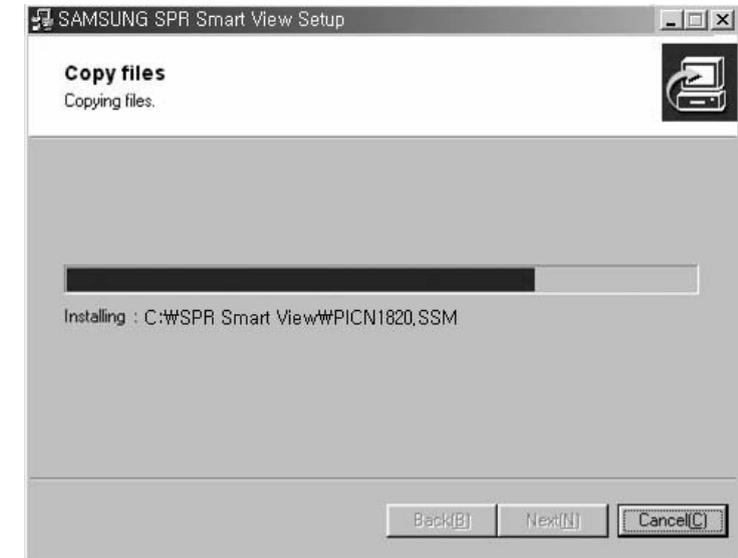
◣ **Check integral package file & program installation**

▶ Installing process of a program window will appear when you designate package folder

▶ Installing process will show twice for testing integration package file and for program installation. SPR Smart View program, which was executed during program installation, will end

◣ **System reboot**

: System need to be restarted when upgrading a new program version is completed.

System [Other]

Description

◣ **Enable/Disable HDD Warning**

: This function is to detect the possibility of HDD drive error in advance and info it to the user.

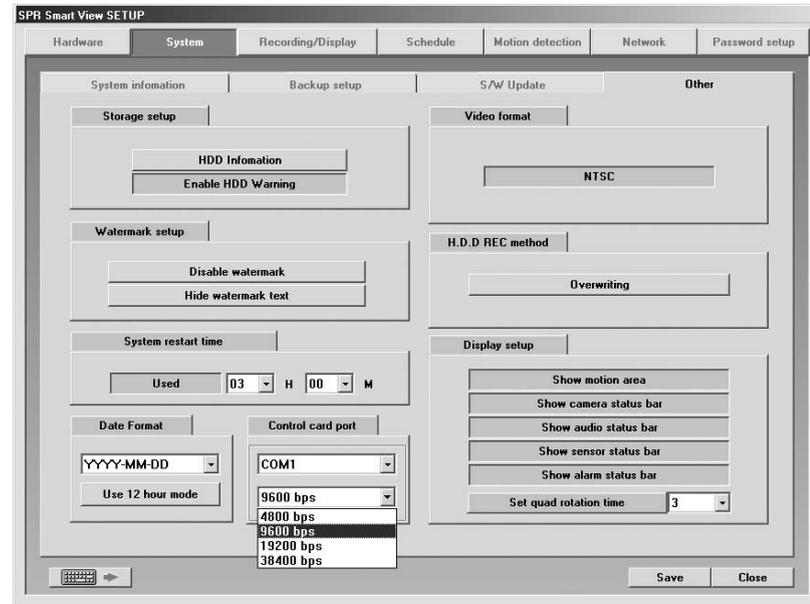▶ A buzzer sounds in the system when the bad sector and overheating generate in HDD disc.

▶ When the buzzer sounds in the system, please replace HDD disc with normal on immediately.

◣ **Video Format**

: Appear Video Format, "NTSC or PAL

◣ **Watermark setup**

▶ Using watermark

① This function inserts Watermark authentication mark on image to be recorded.

② When this function is selected, image will indicate WaterMark on the image.

▶ Displaying watermark text

① This function inserts Watermark authentication mark on image to be searched

② When this function is selected, image will indicate WaterMark on the image.

☞ **[Note] What is <u>WaterMark</u> ?**

BMP and JPEG images can be modified anytime by user.

To ensure the original image which can be modified, special protection called 'watermarking' is enabled onto the image.

Any changes to an original image, including just one pixel, will inform you that the image has been modified.

When recorded image was modified from SPR Smart View program, WaterMark authentication and WaterMark check will tell you whether the image was modified or not.

◣ **H.D.D REC method**

: Setup for HDD replace, when the space of the HDD the recorded video is stored, is not available.

▶ Monowriting(The button pressed state) : One-time recording only.

(HDD is to be changed after it had reached its max. capacity.)

▶ Overwriting(The button not-pressed state) : This will overwrite without having to change HDD.

☞ **A message box will appear with a 'Beep' sound when it is time to change HDD.**

◣ **System Restart time**

: setup the automatic rebooting time for everyday. (This is used to make system more stable.)

▶ Default setup is "Used", in order to disable this click "Used" button again.

It will change to "No Use"

◣ **Date display type**

: Choose date display type.

▶ Below format is available.

Display) YYYY-MM-DD, (ex: 2000-12-31)

MM-DD-YYYY, (ex: 12-31-2000)

DD-MM-YYYY, (ex: 31-12-2000)

☒ Clock - 12 Hours or 24 Hours Mode

: To convert clock mode - 12 Hours or 24 Hours. When 24 Hours mode is in use,

AM/PM will not be displayed.

☒ Control card Port

: This set output Out port and communication transmission speed (bps) to use SSC-

2000 system keyboard, PAN/TILT camera, sensor input and alarm output functions.

▶ The available control port is COM1.

▶ in case of using SSC-2000 keyboard, it is requested to set the communication

transmission speed of DVR and keyboard as the same speed.

☒ Display setup

: It sets up status bar appeared from surveillance screen or area

▶ When button is pressed: Appropriate status bar or area appears from detection mode

▶ When button is not pressed: Appropriate status bar or area don't appear from

detection mode

☞ In order to find out the status of Audio, Sensor, Alarm click (audio/sensor/ alarm

toggle button) from lower part of the screen.

Audio recording status

Sensor input status

Control output status

☒ Set quad rotation time

: setup the rotation time in sec to display in 4ch display

☒ Storage setup

: This function modifies possible disk space of data and allocation status for each drive

▶ Window below appears when [HDD Information] is clicked
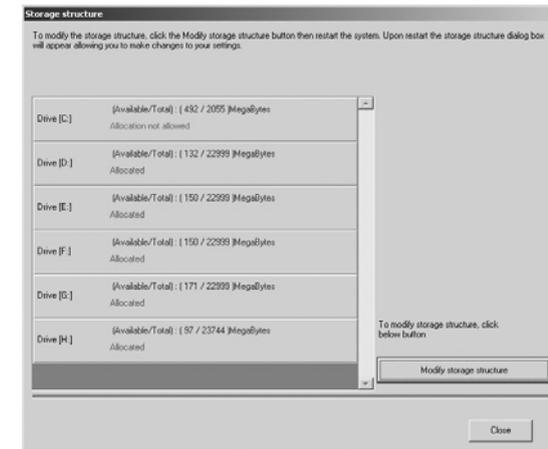
① Drive allocation

▶ Displays Allocation of HDD

▶ Currently available disk space for each drive and allocation status can be checked

② Modify storage structure

▶ You can modify the allocation on each drive

▶ You can re-allocate DB setup for each drive by clicking [Modify storage structure].
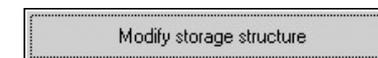
If you click [Modify storage structure], the button will change to [Cancel to modify storage structure]. With this way you can change the HDD storage structure.
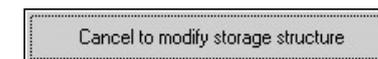
If you click [Cancel to modify storage structure] button, [Modify storage structure] will be disabled.

[Warning]

Recorded data will be deleted by modifying storage structure. So if you would like to modify DB storage structure please backup the data before you modify the recording storage structure.

③ Storage Structure re-allocation

▶ Click [Modify storage structure] and exit the system in the surveillance. Then the system will reboot and you can re-allocate the storage structure.

▶ Once you reboot the system below window will appear and select the drive to allocate again. Finally click [proceed] button.
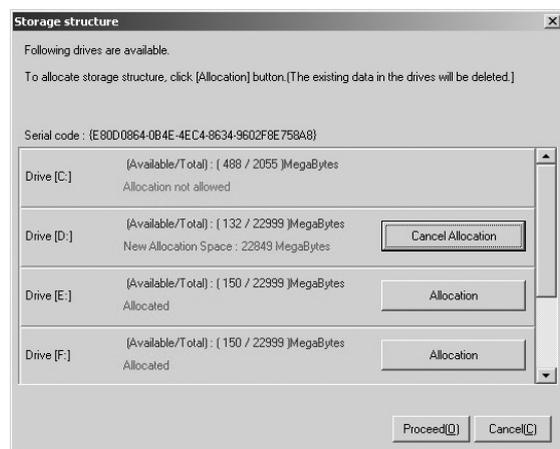
④ Format selected disk drive

▶ Format newly allocated HDD

⑤ Selecting File System

▶ Select the type of File System that will be formatted and click [OK]. Then new storage structure will be created and SPR Smart View starts up.

3

Recording/Display

Recording/Display [Recording and Transfer]
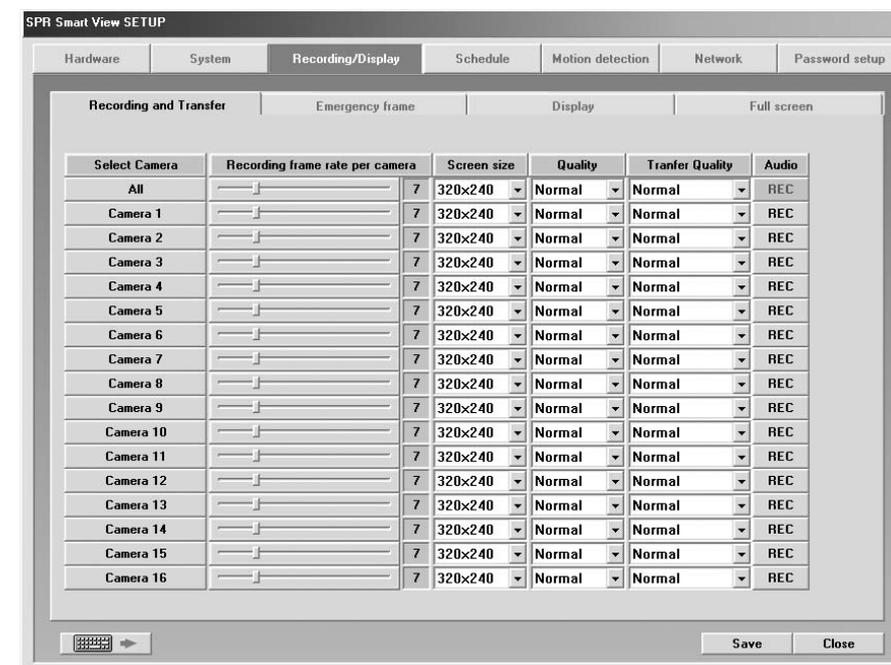
Description

◢ **Select Camera**

: Select a camera no. to set the display size, compression quality and transmission quality by camera.

▶ The camera setting is displayed on hardware tab [Camera] and indicated camera are the channels that are currently recored.

▶ The display size, compression quailty and transmission quality are independently set and saved by camera no.

◢ **Recording frame rate per camera**

: Adjust the number of frames to be saved by camera.

▶ Put amount on a scroll bar and adjust the amount of recording as pressing the left button of the mouse. (The amount of recording by camera is indicated by number on the right side.)

◪ **Screen size**

: Choose screen size

▶ Basically, resolution for 320 ×240 is best suitable for file size

  (display and recording speed will improve twice when resolution is set to 160*120

   but it will decrease image quality. 640 ×480 resolution will give you excellent image

   quality but recording speed will be decreased).

▶ Default value is 320 ×240 (based on NTSC).

▶ Supported resolution is as below :

  NTSC : 160 ×120, 320 ×240, 640x240, 640 ×480

  PAL   : 192 ×144, 384 ×288, 768x288, 768 ×576

◪ **Quality(Recording Quality)**

:To setup image quality

▶ Higher value gives higher image quality but file size for per frame will increase.

▶ Default value is set to "Normal"

☞ Image size and compressed image is closely connected for the file size to be recorded.

◪ **Transfer Quality**

: Setup the quality of image to transfer when connection with SPR Smart Viewer

▶ Higher value gives higher image quality but file size per frame will increase.

▶ Default value is set to "Normal"

☞Image size and transfer quality is closely connected for the file size to be transferred.

◪ **Audio**

: Decided to record audio for appropriate camera

① When REC button is pressed: It records voice for appropriate camera.

② When REC button is not pressed: It does not record the voice for appropriate camera.

▶ You can setup voice for specific camera and it records with voice signal that is being inputted to microphone terminal.

▶ Voice is recorded according to recorded time for image and the sound data will be recorded when the video signal start its recording. Therefore, sound data will not be recorded if the video data was not recorded.

▶ In order to record voice, system must be installed with sound card or exclusive audio board. (If Sound card or audio board is not installed, you can't setup audio category and it will be ignored).

▶ Only 1 channel can record voice when using sound card installed on main board. Voice recording is supported up to 8 channel when using Samsung Electronics Co., Ltd. made exclusive audio board.

▶ If sound card and exclusive audio board are installed simultaneously, then we recommend you to record voice using audio board.

▶ If both SDC-1000A and SDA-1000 are installed, SDA-1000 will be used for saving the audio data.

☞ **[Notice]**

• When trying to backup already recorded data, it can backup with voice and it is possible to record in specific drive. (But, if the voice data was recorded using audio board then backup cannot be made and it will be supported from later version.

• If sound card is embedded, 2way audio communication is possible to communicate with remote S/W.

• If 2way audio is connected using sound card, audio recording will discontinue.

• Window must be setup separately for sound card when using 2way audio with sound card.

• By clicking on button after zooming in one channel in the Monitoring mode, the user can output both he video data and the audio data if the camera supports both.

• Outputting living audio through the dedicated sound board in the Monitoring mode does not affect the setting to save the audio data.

◢ (Interworked) Audio Output

: Through detection of motion, an external sensor's detection, or user's right-clicking the mouse, the audio data along with the video data of an external monitor can be outputted.

▶ By interworking with the connected external sensor, the audio data of the corresponding channel can be outputted based on generation of sensor signals.

▶ The audio data of the corresponding camera can be outputted according to detection of the moving camera images.

▶ By right-clicking on the video channel of a particular camera in the Monitoring mode, the user can output the audio data of the corresponding channel.

Recording/Display [Emergency Frame]
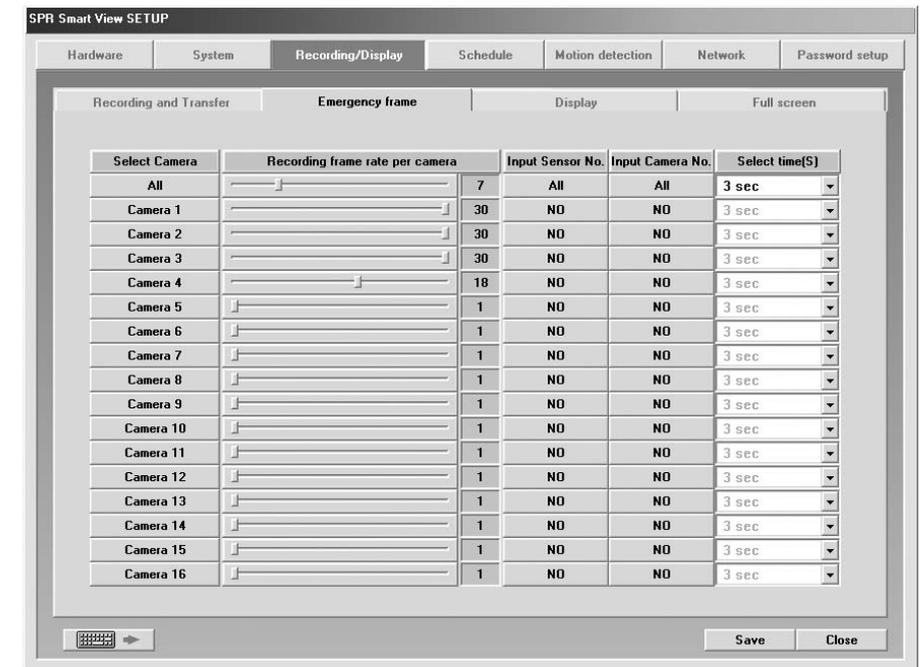
Description

◢ Select Camera

: Type in the camera number to set the frames to record per camera during an emercency.

▶ The list of cameras set in Hardware [Camera] tab will be displayed, and displayed camera number represent channels currently being recoreded.

▶ The recording frame rate per camera will be separately set and saved for each camera.

◢ Recording frame rate per camera

: The user can adjust the number of frames to be recorded during an emergency for each camera.

▶ Left-click on the scroll button, and set the recording frame rate per camera (that will be displayed as a number on the right side.)

▶ It is recommanded to increase the recording frame rate per camera when a signal is inputted to a sensor connecting to a certain camera.

☞ [Notice]

• If an emergency situation occurs by Emergency Frame feature, the recorded frames of other cameras may be lower than he setting.

☒ **Input Sensor No.**

: Select whether to use the sensor inerworking the camera.

① YES : The sensor interworks with the corresponding camera.

② NO : The sensor does not interwork with the corresponding camera.

▶ If a signal is generated is inputted in the sensor interworking with the camera, camera images will be recorded according to the frame rates setting.

☒ **Input Motion No.**

: Select whether to use the motion inerworking the camera.

① YES : The motion interworks with the corresponding camera.

② NO : The motion does not interwork with the corresponding camera.

☒ **Select time(S)**

: Set the Time to record camera images when signals are inputted in the sensor or motion Interworking with each camera during an emergency. (The conversion time is from 3 seconds to 3 minutes.)

Recording/Display [Display]
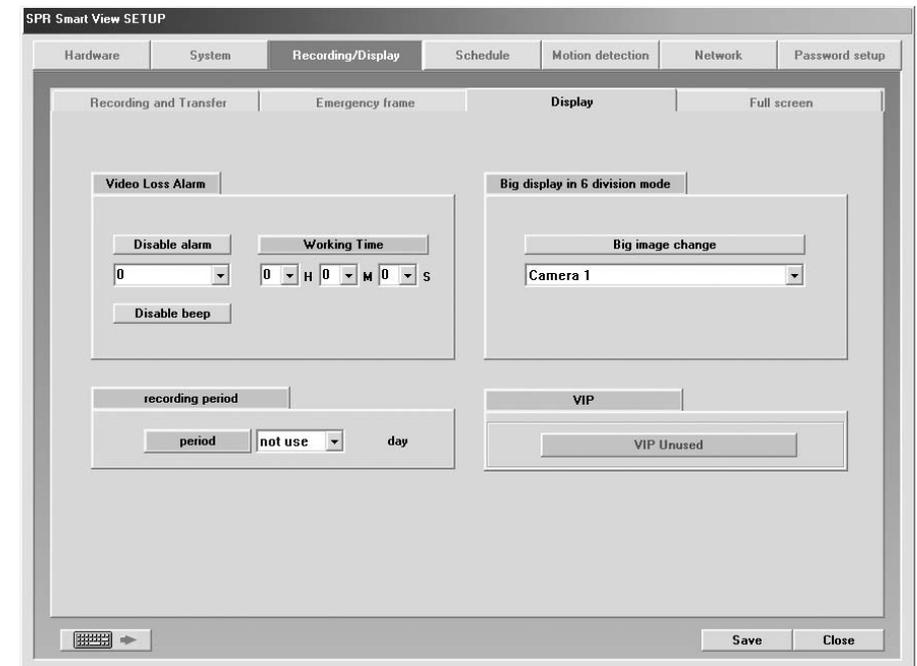
Description

☒ **Video loss Alarm**

: Alarm and beep are generated through he control number that is inerlocked when Video Video Loss is generated.

1) Alarm

① When Alarm button is pressed : Alarm is activated.

② When Alarm button is released : Alarm is not activated.

2) Beep

① When Beep button is pressed : Beep is activated.

② When Beep button is released : Beep is not activated.

3) Alarm Duration

You can set he duration when alarm and beep tone are generated by this function.

▶ You can select a control number that is interlocked by Control Interlocking when Video Loss is generated.

▶ Duration can be set by hour , minute or seconds.

◢ **Big Display in 6 Division Mode**

: Zooms in the camera image selected from 6-division mode to the full-screen size.

① Use Big Display : To zoom in the selected camera image to the full-screen size.

② Not Use Big Display : Not to zoom in the selected camera image to the full-screen size.

▶ The user can zoom in the camera image in 6 Division mode, and the enlarged image will be kept upon conversion.

▶ All camera images except the camera image selected in the 6 Division mode will be converted.

☞ **[Notice]**

- SPR-7416 support 6-division mode.

◢ **Recording Period**

: Select the period to store the video data.

▶ Then, the data will be kept during the period set here and will be automatically detected after the period expires.

▶ This menu is applied from the present day, and the user can select the recording period by day.

▶ In the factory, "Not Use" is set as the period.
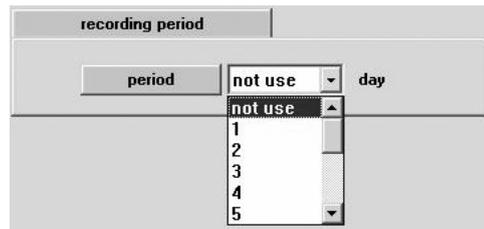
◢ **VIP (Video Interface Port)**

: The VIP function of VGA card is to reproduce the monitoring screen image with high resolution image.

▶ **VIP Unused** : This reproduces the monitoring image with general.

▶ **VIP Used** : This reproduces the monitoring image with high resolution image.

☞ **[Notice]**

- At the time of factory release, it is set as 'VIP Used'.

Recording/Display [Full Screen]

Select Camera	Input Sensor No.	Input Camera No.	Full screen	Select time(S)	beep
All	All	All	All	3	All
Camera 1	NO	NO	NO	3	NO
Camera 2	NO	NO	NO	3	NO
Camera 3	NO	NO	NO	3	NO
Camera 4	NO	NO	NO	3	NO
Camera 5	NO	NO	NO	3	NO
Camera 6	NO	NO	NO	3	NO
Camera 7	NO	NO	NO	3	NO
Camera 8	NO	NO	NO	3	NO
Camera 9	NO	NO	NO	3	NO
Camera 10	NO	NO	NO	3	NO
Camera 11	NO	NO	NO	3	NO
Camera 12	NO	NO	NO	3	NO
Camera 13	NO	NO	NO	3	NO
Camera 14	NO	NO	NO	3	NO
Camera 15	NO	NO	NO	3	NO
Camera 16	NO	NO	NO	3	NO

Fuctions

The camera image remains as a full-screen image according to the setting previously made when signals are inputted in the camera or motion interworking with each camera, and upon the user's choice, buzzer sound may be generated when the camera image is converted to full-screen image.

Description

◢ **Select Camera**

: Select the camera number to make settings - interworking Sensor, Interworking Motion, Full Screen, Conversion Time, and Buzzer Sound.

◢ **Input Sensor No.**

: Select the camera to interwork with the camera.

◢ **Input Motion No.**

: Select whether to use interworking Motion feature.

◢ **Full Screen**

: Zooms in the camera image to the full-screen size when a sensor is inputted into a
sensor interworking with the camera or motion.

◢ **Select Time (S)**

: Set the time to convert the full-screen image to the previous image in seconds.
For the conversion time (in seconds), each camera image remains as the full-screen
images.

◢ **beep**

: Select wheher to use buzzer sound after zooming in the image to the full-screen size.

4 Schedule

Schedule
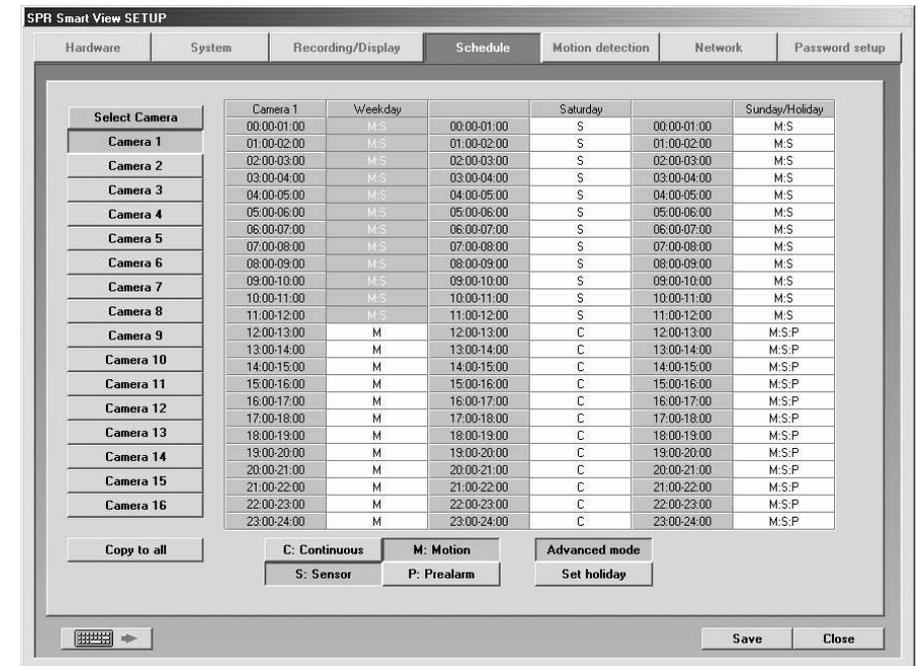
Description

◢ **Select Camera**

: Choose camera number to use

◢ **Copy to All**

: Information of currently selected camera will be copied and applied to every camera at once

◢ **Setup Recording time**

: This function is to set recording type for selected camera by each day and time.

▶ Select time of day and drag it to select area and then select recording mode form [Record Mode] (C/M/S/P)

▶ If you need to set in minutes, double click on appropriate time then it will be set in minute.

←01 ~ 59→
minutes
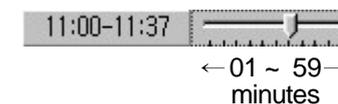
◪ **Record mode (C/M/S/P)**

: This function is to set recording type with day and time for selected camera.

▶ After choosing day and time from selected camera, selecting more than 1 record mode will change selected time within selected time.

▶ If you erase all the record type from [Record Mode], selected setup time will change to no record mode.

▶ Default is 'Motion & sensor record' of 24 hour continuous record.

Indication by record type	Supported record type
• C : Continuous record • M : Motion record • S : sensor record • P : free-alarm record	• no record • continuous record • motion record • sensor record • motion and sensor record • motion & free alarm record • sensor & free alarm record • motion &sensor & free alarm record

**[Tip]**

① **Continuous Record**

- This is used when continuous recording is done without using motion detection.

② **Motion detection record**

- This is used when recording is done using motion detection.

③ **Sensor Record**

- This function is to record by inputted sensor signal.

- Sensor setup can be done by camera and use time. If sensor is captured within selected time, related camera image will be recorded or related control will operate.

- Sensor input signal will be ignored if anything occurs outside the setup time.

- If related camera or time line is set to 'Continuous Record', then Sensor Record cannot be used.

④ **Pre Alarm**

- When a motion is captured on camera, then camera will record every moment of motion occurrence in addition to five seconds before the motion was detected.

 (But, recording speed may decrease if you setup several cameras with it).

- If the appropriate camera or time is set to 'Continuous Record' you cannot use Pre Alarm function.

◪ **Simple mode**

: This function lets you to select by minutes instead of hours depend on recording mode.

▶ When [Simple mode] is selected it will convert to [Advanced mode]and gives more option to setup time. You can set different time for each time.

◪ **Set holiday**

: You can pick any specific day of the year and set it as holiday

> **[Warning]**
> **You must select [Save] button from [Schedule setup] in order to store information on any changed holiday.**

Setup Holiday
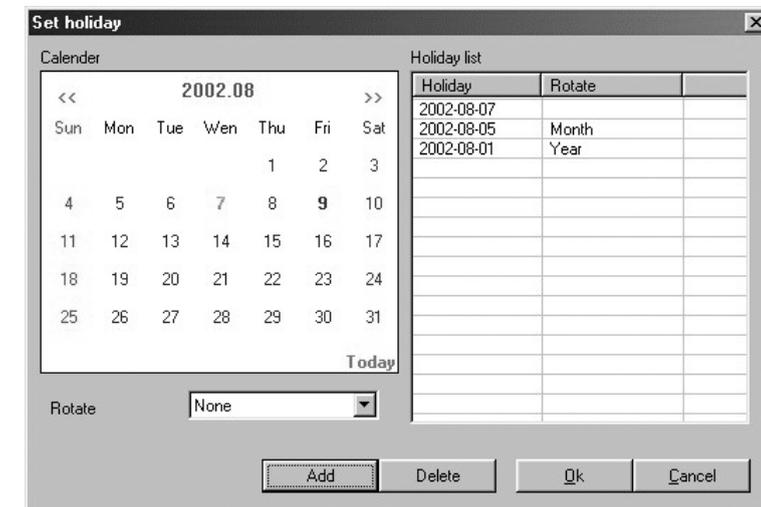
◪ **Calendar**

: Select any day to designate as holiday

▶ << : Move to prior month

▶ >> : Move to next month

▶ Today : Shows current Month/Day/Year

◢ **Rotate**

: You may choose specific Month/Day/Year as holiday

▶ If you select [None], one day will be assigned and for that specific day only.

◢ **Holiday list**

: This function is to show designated holiday and its repeated date or period in a list

▶ Any additional holidays will be stored in the list in an alphabetical order.

◢ **Add**

: This function is to add holiday you have designated.

▶ Designated holiday will be added to [Holiday list] when you click [add].

◢ **Delete**

: This function is to delete stored holiday.

▶ In order to do this, select the date you wish to delete from [Holiday list] and click [delete].

5 Motion detection

Motion detection screen

Detection area

Functions

System starts recording when it detects any activity in the detection area without using sensors.

Description

◢ **Select Camera**

: Select the camera to setup

◢ **Sensitivity**

: Adjust the motion detection sensitivity

▶ Default value is "80", which is the most proper

◢ **Alarm(M)**

: System makes beeping sound to alert when there is any activity in the selected time.

▶ When Alarm(M) button is pressed on : Alarm beeping works.

▶ When Alarm(M) button is not pressed on : Alarm beeping does not work.

☞ System beeps only when activity is detected in the selected time zone in recording

   schedule.

☞ System does not beep if the camera is set to 'continuous recording'

◢ **Brightness / Hue / Contrast**

: Adjust Brightness, hue,and contrast

▶ Default for camera is all "0" , and the range is -127~126 and adjustable to each camera.

   (Proper setup is required depending on situation)

◢ **Enable / Disale Auto Gain**

▶ The brightness control for external monitor output is automatically controlled by the DVR

   system (The Auto gain function can only be selectable on the SPR-7116 model.)

◢ **Motion Detection Area**

▶ Select the camera number and draw detection area using left click dragging.

▶ Maximum five detection area can be made.

▶ To remove the selected motion detection area drag mouse pointer toward out of box.

◢ **Default**

▶ Restore the default color configuration for the camera by clicking [Default] button

◢ **Area draw**

▶ Entire area will be under motion detection mode when you click on [Area draw] button.

◢ **All area draw**

▶ Entire area for every camera will be under motion detection mode when you click on [All

   area draw] button.

◢ **Color/Monochrome**

▶ It sets the color or monochrome display of a conneced camera.

▶ [Color/Monochrome] is operated by a toggle mode and when a connected camera is a

   monochrome one, it is necessary to set the display as the monochrome mode.

▶ If the monochrome camera is connected under the setting of [color], the color of a specific

   camera may be in appropriately displayed.

◢ **Enable/Disable Convert Camera**

: This function is to hide the image of each camera from the monitoring screen.

▶ | Enable Covert Camera | : This hide the image of the selected camera from the monitoring.
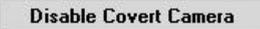
▶ | Disable Covert Camera | : This does not hide the image of the selected camera from the

                                 monitoring screen.

☞ **[Notice]**

• The camera having the function of security camera hides the image of camera from the
  monitoring screen but does not affect the recording.

• The camera having the function of security camera does not show the image even in the Viewer.

6

Network

Network


```
SPR Smart View SETUP
┌─────────────────────────────────────────────────────────────┐
│ Hardware │ System │ Recording/Display │ Schedule │ Motion detection │ Network │ Password setup │
│                                                               │
│  ┌──────────────────┐                                         │
│  │ Sensor for emergency │                                     │
│  │   Sensor 1       │                                         │
│  │   Sensor 2       │        ┌──────────────────┐             │
│  │   Sensor 3       │        │ Emergency IP address │          │
│  │   Sensor 4       │        └──────────────────┘             │
│  │   Sensor 5       │        ┌──────────────────┐             │
│  │   Sensor 6       │        │   Transfer time  │             │
│  │   Sensor 7       │        │ 0              ▼ │             │
│  │   Sensor 8       │        ┌──────────────────┐             │
│  │   Sensor 9       │        │     Password     │             │
│  │   Sensor 10      │        │ Password  **** │               │
│  │   Sensor 11      │        │ Confirm   **** │               │
│  │   Sensor 12      │        ┌──────────────────┐             │
│  │   Sensor 13      │        │  viewer limit setup │           │
│  │   Sensor 14      │        │ 16             ▼ │             │
│  │   Sensor 15      │        ┌──────────────────┐             │
│  │   Sensor 16      │        │ Live Stream Bandwidth │         │
│  └──────────────────┘        │ unlimit        ▼ │            │
│                              ┌──────────────────┐             │
│                              │ Type of connection │           │
│                 │ LAN/PSTN/ISDN/LEASED CIRCUIT[Router]  ▼ │   │
│  [Allow Transfer Covert Camera] [System IP setup] [Network Port Setting] │
│                                                               │
│  ⌨ →                                        Save  │  Close   │
└─────────────────────────────────────────────────────────────┘
```

Description

◢ **Sensor for emergency**

  : If the sensor detects any signal it sends alarm to Remote with the recorded image during the

    designated time.

    ▶ Click the sensor number to configure

◢ **Emergency IP address**

  : Transmit emergency image or message by connecting to the assigned IP address.

    ▶ Click [Emergency IP address] button and input IP address.

◢ **Transfer time**

  : Select the duration in sec how long it will send emergency images to SPR Smart Viewer on

    connection.

    ▶ If any new signal is detected while connection, image transfer time starts again.

◢ **Password**

  : Input required password to connect from SPR Smart Viewer p.c. (4 digit number is possible.)

    [Password] : Input password required to access to DVR from SPR Smart Viewer.

    [Confirm]   : Input once again to confirm.

  ▶ Default value is "1234"

◢ **Viewer limite setup**

  : This function is set the number of Viewer allowed to connect to View.

  (Max. number of connection : 1 ~ 128)

◢ **Live Stream Bandwidth**

  : It is availabled to set the bandwidth when transmitting the picture data by network.

  (768Kbps, 1.5Mbps, 2.0Mbps, Unlimited)

◢ **Type of connection**

  ▶ For remote connection LAN, PSTN, ISDN, Leased Circuit can be used.

  ▶ ISDN or Leased Circuit using router can be used. ISDN or PSTN can be used to connect

    to DNE without router directly.

  ▶ Check on "No Use" for no connection

◢ **Allow/Disallow Transfer Convert Camera**

  : This function allows to see the image of the camera having the 'security channel' function
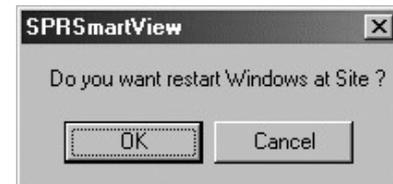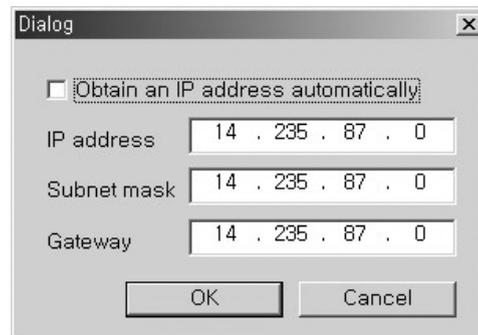
  from the Viewer.

  ▶ [Allow Transfer Covert Camera] : This shows the image of the security channel camera from

    the Viewer.

  ▶ [Disallow Transfer Covert Camera] : This does not show the image of the security channel

    camera from the Viewer.

◢ **System IP Set-up**

: If an IP is not set up in window, set up system IP in SPR Smart View system.

① Select [System IP Set-up] button and input IP address, Subnet mask, Gateway in the next
window appears, and then press [OK] button.

② When SPR Smart View Restart Window appears, select [OK] button to restart the system.

Dialog

☐ Obtain an IP address automatically

IP address   14 . 235 . 87 . 0

Subnet mask   14 . 235 . 87 . 0

Gateway   14 . 235 . 87 . 0

OK   Cancel

SPRSmartView

Do you want restart Windows at Site ?

OK   Cancel

☞ **[Notice]**

When you try to connect to DVR from SPR Smart Viewer(Remote), SPR Smart View(DVR)

checks the site code and password together.
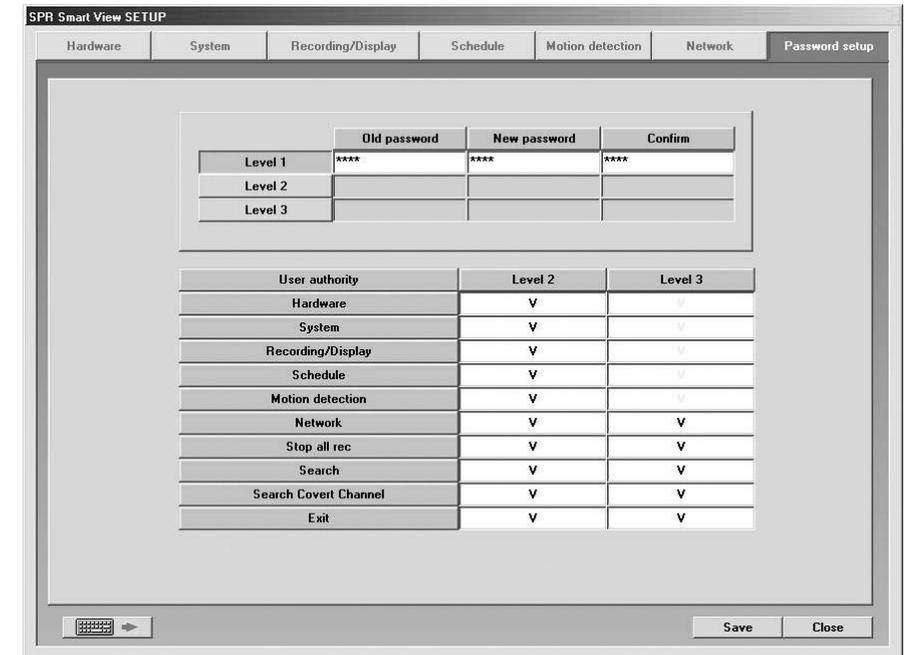
◢ **Network Port Setting**

: Network ports used for View-Viewer commnunication must be the same on the both sided.

Site's network ports can be assigned here.

7

Password setup

Password setup

Description

◢ **Password change**

: You can assign password to three operators and some functions can be set to work with
permission. (Operator 1 can be in charge of everything and operator 2 and 3 can modify
permitted items only.

▶ Level   : Click Level button to change the each operator's password.

▶ Old password   : Enter current password you are using

▶ New password : Enter new password

▶ Confirm   : Enter new password again

◢ **Password Setup**

: 1st level administrator can block some mode from 2nd and 3rd level administrator.

▶ The function will be activated by ticking on that box.

[Notice]
If you lose your password, pleas delete C:\WINNT\dPassword.ini and

8

On-screen Keyboard

On-screen Keyboard Display

Functions

: It enables to enter letters using on-screen keyboard when there is no separate keyboard os it diffcult to use keyboard.

Description

◿ **Active On-Screen Keybaord**

: Select on-screen keyboard to enter letters, and you can run on-screen keyboard.

◿ **Input**

: Click he parts to enter the letters among the setting items by a mouse and immediately, press the letters(keyboard). And you can enter the letters.

◿ **Close On-Screen Keyboard**

: Select [File]->[Close] menu on On-Screen keyboard or press Close[X] button, and On-screen Keyboard is closed and the setting window of SPR Smart View program is displayed.

☞ **[Notice]**

• On-Screen keyboard of SPR Smart View program only provides English and does not support Korean or other languages.
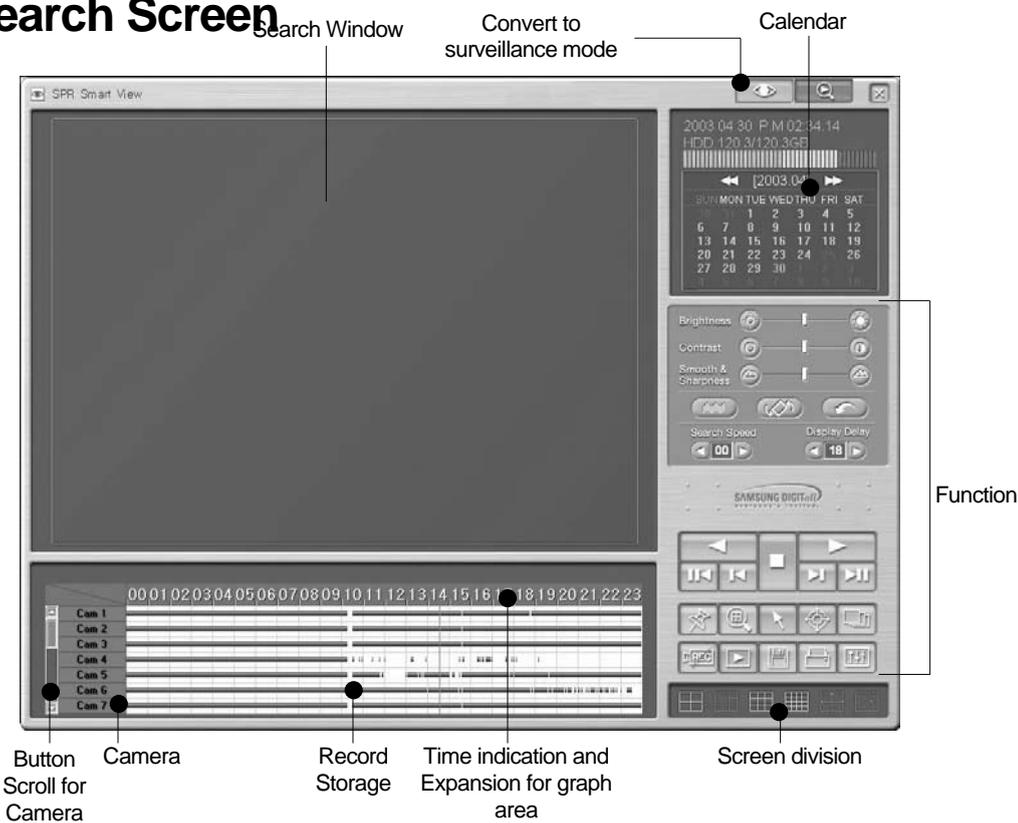
IV

Search Screen

1 Run Search Program

① Click on search [🔍] button to execute from surveillance screen.

② Password screen will appear for securing purpose Click [OK] if the password was not
   initially entered

Search Screen

Search Window

Convert to surveillance mode

Calendar

Function

Button Scroll for Camera

Camera

Record Storage

Time indication and Expansion for graph area

Screen division

Configuaton of Search Screen

▶ Search screen Window

▶ Time display & expansion of graph section

▶ Switch to monitoring mode

▶ Scroll and Camera button to select a camera to search

▶ Graph indicating the type of recording & storage by tme zone

▶ Calendar which shows recording date

▶ Function button for search

▶ Split screen setting button

2 Search Date and Time Selection

Calendar

▦ **Search 'Date'**

: Choose the Date you wish to search

▶ << : It shows whole calendar

>> : Calendar shows the following month

▶ On calendar, it will be indicated in yellow if
  anything is recorded on such date, red
  indication means the one you clicked to
  search, and sky blue indicates that
  something is being recorded.

Time indication and Expansion of graph region

00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23

▦ **Time indication and expansion of Graph region**

: It indicates time for the part where data is recorded.

▶ When you click on time, time zone will be expanded in three steps so graph region can
  been seen more clearly.

▶ In case such country is applied with Summer Time, color will convert from Yellow (default
  color) to pink but it will convert back to Yellow as soon as the Summer Time is over.

▶ Any modification of time caused by Summer Time will automatically change back to current
 (actual) time.

> ☞ **[Tip] What is Summer Time...**
> Sun rises early but sets late during summer so people tend to take advantage for this longest
> period of daytime of the year by forwarding one hour which is known as Summer Time. Summer
> time is widely used throughout the world and people forward one hour earlier than actual time at
> the beginning and do the vice-versa at the end of Summer Time. For example, if the starting time
> is 2 o'clock then you are to change the time to 3 o'clock and then change 3 o'clock back to 2 at
> the end.

3 Camera Selection

Camera Selection Screen
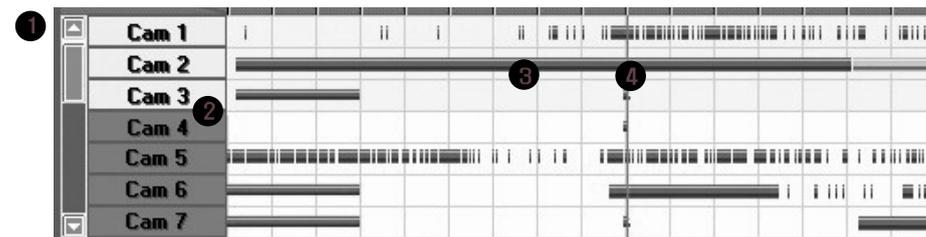
Description

❶ **Camera Scroll button**

: This function is to scroll search button from up and down.

❷ **Camera**

: Choose the camera number you wish to search

▶ When you double click on camera number, button and the colored graph of appropriate camera number will be changed.

❸ **Indication of stored amount**

: It indicates record type and storage amount by time.

——————	Violet	Recorded with continuous recording
——————	Blue	Recorded with motion recording
——————	Orange	Recorded with Sensor recording
——————	Green	Recorded with Pre Alarm, but there is no indication if nothing was recorded

❹ **Search Bar**

: This function indicates current time line of data which is being searched.

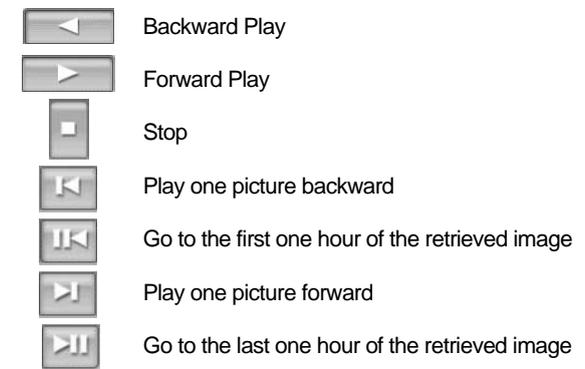▶ You can immediately search for any recorded data by horizontally moving search bar.

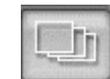☞ **[Note]** Black screen will be displayed if there is no image for the camera you selected.

4 Playing Recording

◢ **Playback**

: Select the date, time and camera number to playback.

▶ Adjust search speed and delay to display as you want.

◀	Backward Play
▶	Forward Play
■	Stop
I◀	Play one picture backward
II◀	Go to the first one hour of the retrieved image
▶I	Play one picture forward
▶II	Go to the last one hour of the retrieved image

Search Tools

Panorama

:Display selected camera's image consecutively in each divided screen.

Zoom

: Zoom in and out. Gives five times magnification.

Digital Zoom

: Each click on Digital Zoom button converts among zoom-in / zoom-out / drag.

▶ Zoom-in (+)   : Right click on certain spot zoom in up to 13 grades.

▶ Zoom-out(-)   : Right click on certain spot zoom out.

▶ Drag   : Move the magnified image by dragging

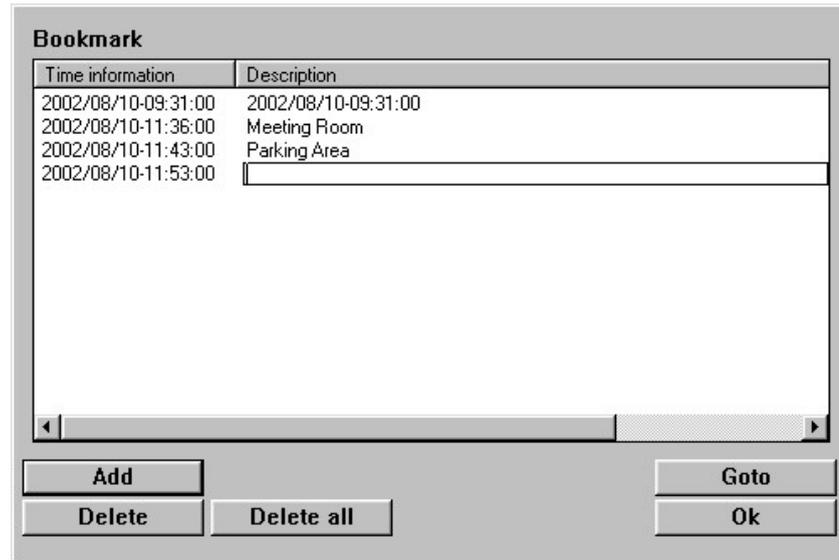☞ In the search mode zoom in or out is enabled only when one camera is selected. (Zooming is not possible while playing multiple cameras' image. Therefore, click 'stop' and play One camera to zoom.)

Bookmark

: Records the location of image under playback

You can go back to the recorded location directly next time.

Bookmark

Time information	Description
2002/08/10-09:31:00	2002/08/10-09:31:00
2002/08/10-11:36:00	Meeting Room
2002/08/10-11:43:00	Parking Area
2002/08/10-11:53:00	

Add		Goto
Delete	Delete all	Ok

◢ **Time Information**

: Display time of bookmarked image.

▶ When you add the image location during search the date and time will be saved in the order by date and time.

◢ **Description**

: You can input description on the bookmarked image.

▶ If you do not input description the one in [time Information] will be input.

◢ **Add**

: This is to add the image location to the bookmark list.

▶ [Add] If you click [Add] button, the current image location will be added to the bookmark.

◢ **Delete**

: This is to delete the bookmarked location.

▶ In order to delete bookmarked record select it in the bookmark and click [Delete]

◢ **Delete all**

: Delete all the bookmarked image location.

▶ All the image location will be deleted if you click [Delete all] button.

◢ **Goto**

: You can go to bookmarked image location by clicking this button.

▶ Click [goto] button to go to the bookmarked location after selecting the bookmark.

◢ **OK**

: Select [OK] button after adjusting bookmark information.

Recording during playback

: Image search speed will increase if DVR does not record while searching.

▶ In order to set it as recording during playback, click this button again.

(This will be disabled in monitoring mode.)

[Notice]

Though the image recording goes on while searching, however, recording graph does not change. You should go to live mode and come back to searching mode to see updated graph.

Screen Division

: Playback recorded image in division.

▶ 4ch, 9ch, 16ch can be selected and deactivated mode cannot be used.

Search Speed

: Playback skipping the certain number of image.

▶ The number is not the number of actual image, but the one set inside SPR Smart View program.

Display Delay

: Time to display one image on screen.

▶ 0 (Fastest) ~ 50 (Slowest)

5 **Search Tool**

Brightness

: Adjust brightness of the image.

Contrast

: Adjust contrast of the image.

Smooth & Sharpness

: Make the rough image smooth and vague image clear.

Noise Reduction

: Reduce noise in the image.

Turning image

: Turn the image in the angle of 90, 180 or 270. And flipping is possible.

Restoration

: Getting back to the original image before modification by search tools.

☞**[Notice]**

Search tools an be used for one camera's image only. Therefore, you should click stop

button and choose one image to use above tools.

6 **Audio Setup**

Audio playback setup

: Playback with recorded audio.

▶ Click on left button creates "Audio Play" window as below.

▶ Tick on the box next to "Enable" in "Audio Play" window.

▶ Adjust volume properly.
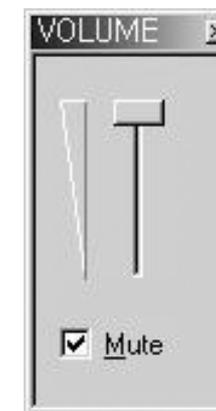
☞**[Notice]**

• Audio can be played only on one selected channel. You cannot play audio watching more than
2 channels. You should choose one channel to play audio.

• Video loss can take place within the first 1~3 seconds of play back, this is due to the video and
audio synchronization and is not a fault

• Audio can only be played back in normal forward play. Reverse Play or Frame Play is not
possible

• Skip and delay cannot be used with audio play back.

• Please refer to [Appendix] for audio setup.

7

Data Backup

Backup

: copy restored data onto media on a selected time or AVI format.
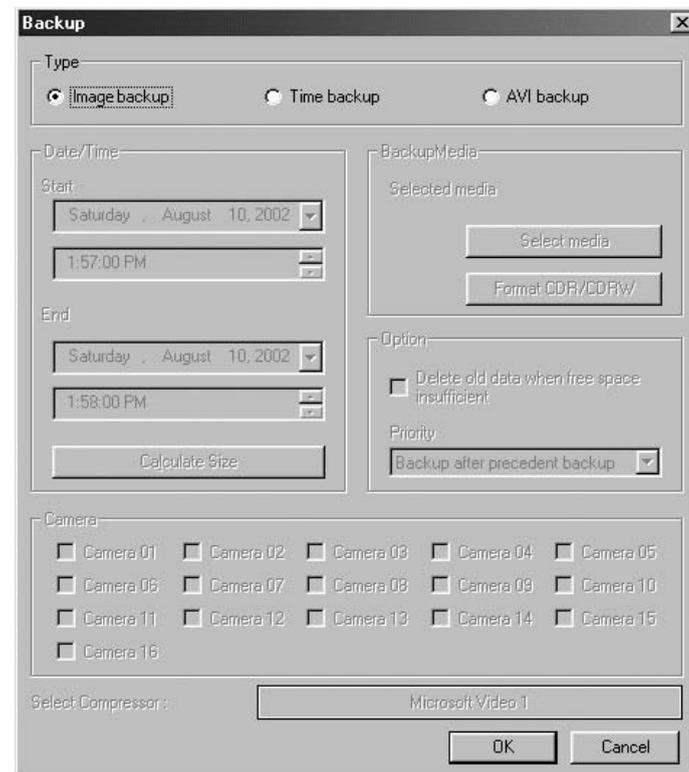
Image Backup

☑ **Image Backup**

: This is used to backup one still image in BMP or JPEG format. This image can be

viewed with other image viewer.

▶ When you click 'backup' icon while searching above 'backup' window will appear.

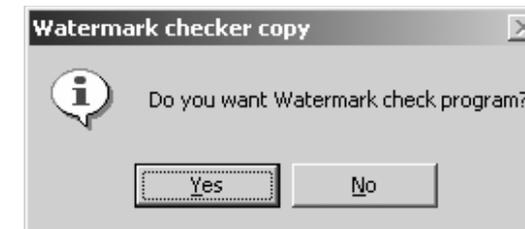▶ Image backup gets activated during searching only one image.

☑ **Select Media**

: Select backup data from its storage media.

▶ You may select HDD, CD-RW, Portable drive, Network Drive, Remote IP Address

☑ **Image Backup**

① Click [Image Backup] in "Backup" window and click [OK]

② Below 'watermark checking' window appears.

③ If you click 'Yes', the selected image will be copied onto media drive with Watermark

checking program.

▶ Only one image can be copied and 'watermark' checking program will be copied only at

the first copying.

☞ **[Notice]**

The image will be copied in BMP or JPG format. The image will be copied with the

'watermark checker program' to check to see whether the image was illegally modified or not.
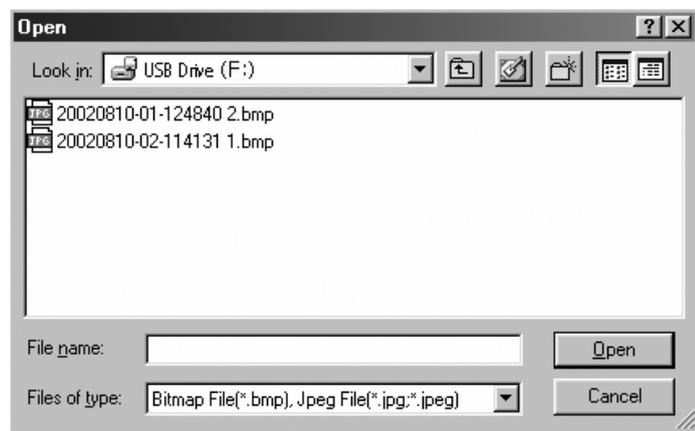
[How to use Watermark Checker]

: You can check the authentication of the image restored in BMP or JPG.

> **Watermark Check Program**
> File Open
> Water Mark Check
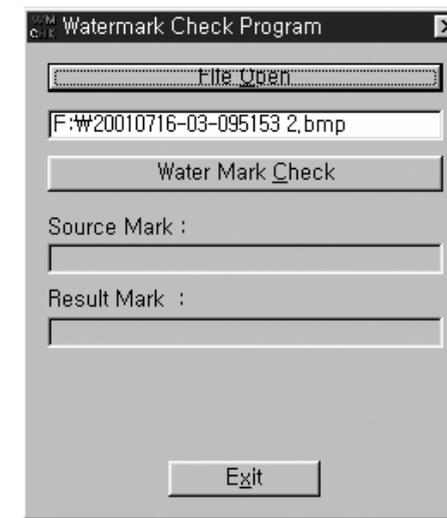> Source Mark :
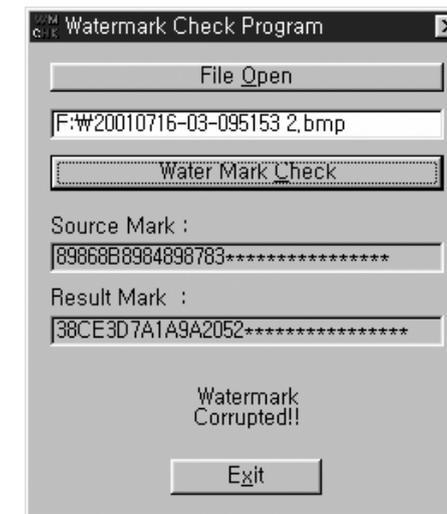> Result Mark :
> Exit
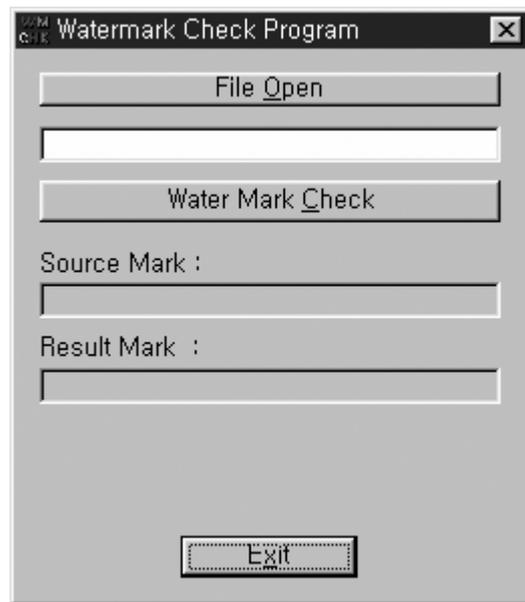
◪ **Watermark Check Program**

▶ If you execute 'WMChecker.exe' which is copied to the media drive with the backup image, following 'WaterMark' checking program appears.

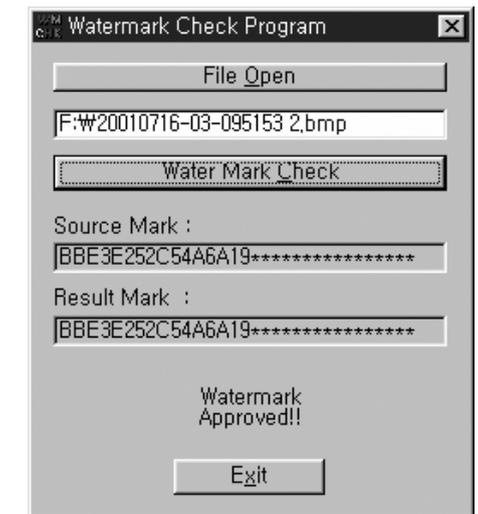▶ If you click 'File Open' button, below widow will appear to check an authentication of the image

> Open   ? ✕
> Look in: USB Drive (F:)
> 📄 20020810-01-124840 2.bmp
> 📄 20020810-02-114131 1.bmp
> File name: Open
> Files of type: Bitmap File(*.bmp), Jpeg File(*.jpg;*.jpeg)   Cancel

▶ When you open the file name, a window below will appear. Select 'watermark check' to verify the image.

> **Watermark Check Program**
> File Open
> F:\20010716-03-095153 2.bmp
> Water Mark Check
> Source Mark :
> Result Mark :
> Exit

▶ Once verification is completed windows similar to those below will appear.

> **Watermark Check Program**
> File Open
> F:\20010716-03-095153 2.bmp
> Water Mark Check
> Source Mark :
> 89868B8984898783****************
> Result Mark :
> 38CE3D7A1A9A2052****************
> Watermark
> Corrupted!!
> Exit

> **Watermark Check Program**
> File Open
> F:\20010716-03-095153 2.bmp
> Water Mark Check
> Source Mark :
> BBE3E252C54A6A19****************
> Result Mark :
> BBE3E252C54A6A19****************
> Watermark
> Approved!!
> Exit
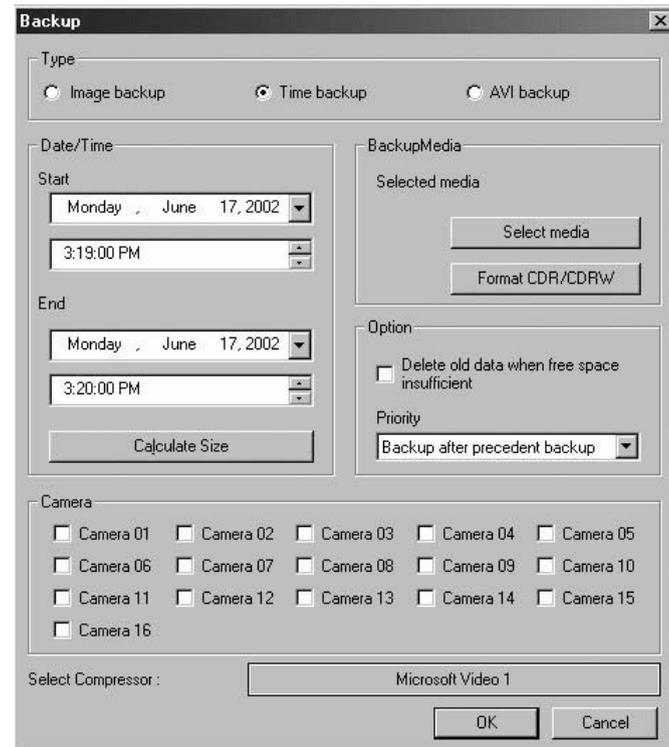
< Corrupted image >   < Uncorrupted image >

Time backup (Large Media)

: This is a backup using HDD, CD-RW, mobile driver, network driver or copy using IP
address.

◣ **Backup by time**

▶ This streaming data is our own data type. So this image cannot be read using other
program than SPR Smart Viewer program.

◣ **Date/Time**

: Select the time to start and finish backup.

▶ This time setup should be earlier than current time. If this is later than current time
backup does not work despite clicking [OK]

◣ **Calculate Size**

: Click this button to calculate expected data size for the selected time.

◣ **Select media**

: Media to use on backup.

▶ You may select HDD, CD-RW, Portable drive, Network Drive, Remote IP Address.

◣ **Format CDR/CDRW**

: This is used when you select CD to backup data.

▶ If CD was not formatted, use Direct CD program for CD formatting process. When you
select [Format CDR/CDRW], you can format CDR/CDRW media by Direct CD (Refer to
appendix)

☞ **[Notice]**
Direct CD program has to be installed in window in order to format CD.

◣ **Option**

[Delete old data when there is not enough space]

: This function will record data after deleting the old data when there is not enough
storage space to backup the data.

[Priority]

: Select the priority of backup data.

▶ Wait until the processing work is done; start the backup after current backup and waiting
data have finished their backup.

▶ Start after the precedent backup; when current data's backup is completed, do not back
up the waiting data if the other data was selected first.

◣ **OK**

: Backup will start from the designated backup media drive when you click [OK].

[Backup onto CD-R / CD-RW]
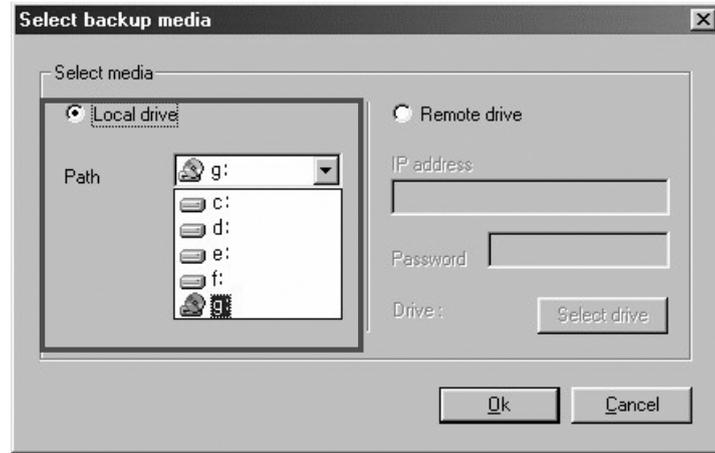
☑ **CD-R/RW backup**

- Select [Select media] from "backup media" window.
- From "Select backup media" window, select [OK] button after selecting CD-RW drive which you will backup.
- You need to format CD in order to backup CD-R/CD-RW from SPR Smart View program.
- When the CD is unformatted or failed to Backup, please follow this step to Format the CD. (Refer to appendix)
- In order to backup on CD-R/CD-RW, Direct CD S/W should be installed on the system.
- If the CD is formatted, follow the same way with backup to HDD, or removable drives (DVD-RAM, ZIP, MOD, RB)

AVI backup

: converts compressed streaming data into AVI format so that windows media player can placyback the backup data.
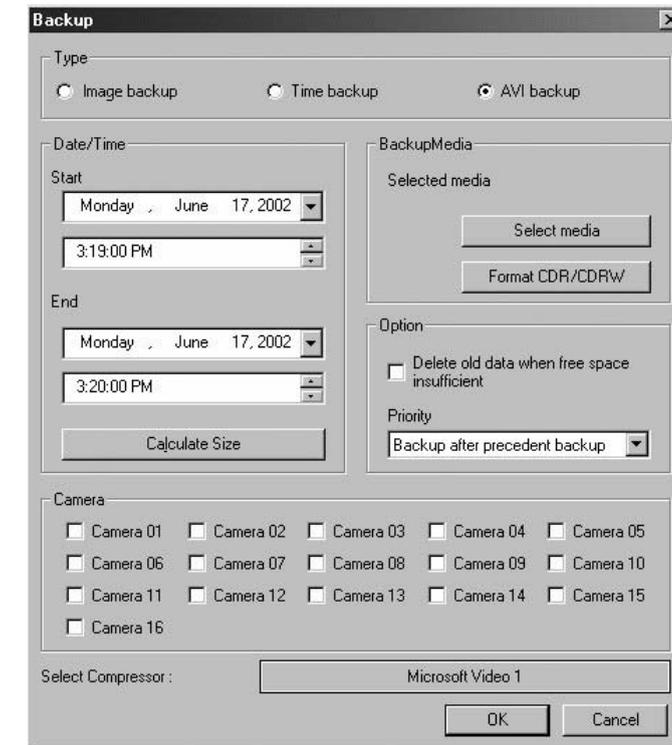
☑ **AVI backup**

- ▶ Data backup is available to HDD, CD-RW, mobile drive, network drive and remote drive using IP address.
- ▶ Backup by camera is available during backup in AVI format, and backup of Max. 5 min video per one time is possible.

☑ **Date/Time**

- ▶ In case of backup into AVI, the time between start and end of backup is automatically set to Max. 5 mins.

☑ **Camera**

: select the camera number to backup in AVI.

- ▶ Multiple cameras can be selected and recorded in AVI.

◢ **Select Compressor**

: You can select available compression codec under AVI backup.

☞**[Tip]**

• In order to format CD, DNE should have Direct-CD installed.

• When other advanced compression codecs then the basic Mpeg compression codec provided on Window were installed, AVI files are saved into smaller sizes, the compression quality is advanced and the time for backup is reduced.

• According to types of compression codecs, number of selected cameras and set backup time, AVI backup time may differ significantly.(When the basic codec provided on Window is used, codecs of Mpeg4 Video Codec v2 over are recommended.)

• In case of backup into AVI files, audio data are not backed up but only video data are backed up into AVI files.

• According to the resolution of saved video data, resolutions of AVI files into which the data are backed up are as follows.

SPR Smart View Resolution	AVI File(NTSC / PAL)
640x480(768x576) 320x240(384x288)	320x240
160x120(192x144)	160x120

◢ **Select media**

: Select media type

▶ HDD, CD-RW, Mobile Driver, or Network driver can be used.

◢ **Format CDR/CDRW**

: This is used when backup media is CD.

▶ When CD is not formatted a user should proceed CD format using Direct CD program, and once he chooses [Format CDR/CDRW], Direct CD program begins to format CDR/CDRW media. (refer to appendix)

☞**[Notice]**

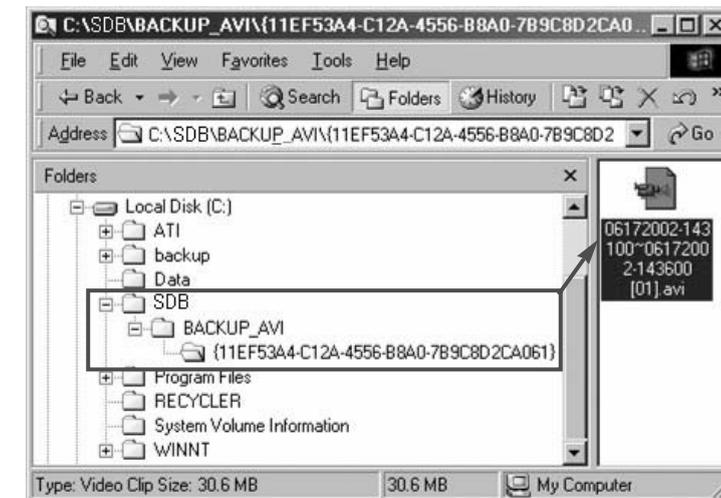In order to format CD, DNE should have Direct-CD installed.

[AVI Backup Status]
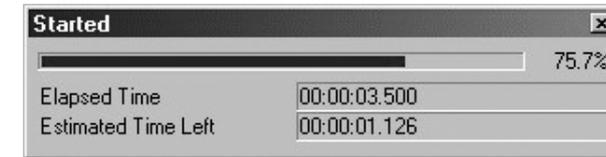
◢ **Started**

: When you double click on animated icon [GO] located on top of image while real time is in progress, current backup data and backup status and its progress rate, lapsed time, and remained time can be checked.

[AVI Real Time Backup File]

◢ **Choose AVI Real Time backup file**

: In order to check AVI Real time backup file, double click on recorded file from assigned drive "SDB\BACKUP_AVI\ {xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx} ₩month day year-time min second ~month day year-time min second[camera No].avi" then you can check appropriate file information using

Window Media Player which is separately provided by real time player or window.
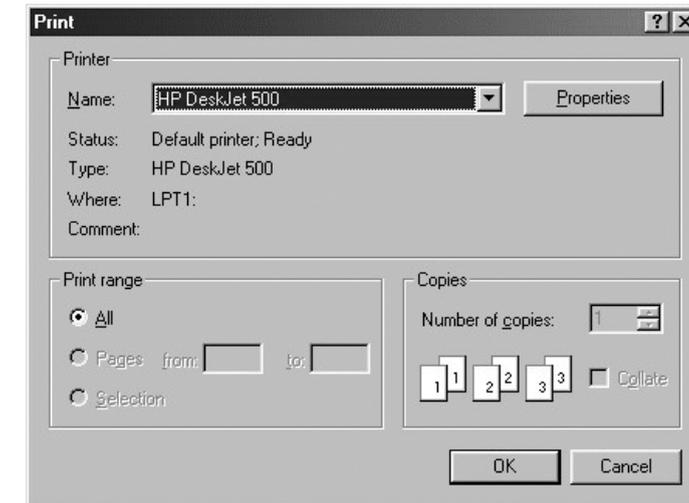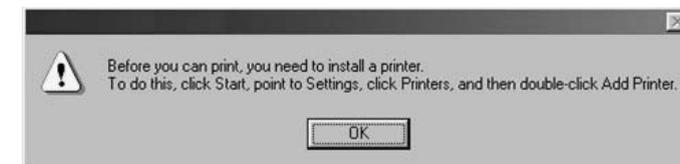
8

Print Search Screen

Print

: You can only print when Print button is selected from searched screen while
one image is magnified, then click on [OK] button shown below (Size and
Brightness must be adjusted in advance).

Following ERROR will occur if print setup is not completed

☑ **AVI Real Time Backup File and Caption information**

: Using media player provided from Window, caption information of Date and time, days,
camera number and etc can be indicated. Other real time player shows image only.

☞**[Note]**

We recommend minimum of v6.4 for Media Player and if caption information cannot be checked,
then choose 'Caption' from [View] to check such information.

☞ **[Tip]**

Print Setup

    1. Click Start → Setup → Print from Windows

    2. Double click on 'Add Printer' when Print Menu appears

    3. Click [Next] when Add Pinter Wizard executes

    4. Check to see if [Local Printer] is selected and then Click [Next] if Printer is connected
       to system.

    5. Select Print Driver from the box where it asks manufacturer, name, and model of
       printer.

    6. Print setup is completed when Driver is installed on screen.

Size of Image Output

    1. It produces output and the printed size is equivalent to the magnified ones seen
       from the screen.

When printer is not working,

    1. Check to see whether printer is setup from Window or not

    2. If the printer is setup to the system but still not working, then check to see if cable
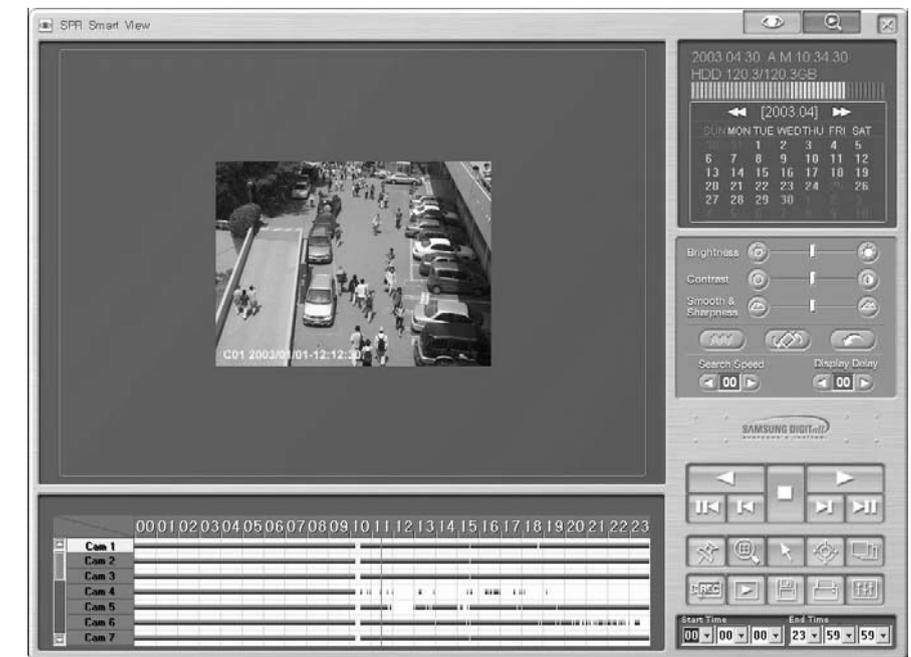   or power code are connected.

9

Motion Search

Motion Search

    : It is used to search only the motion in a specific area while one screen is enlarged among
    the search images.

◤ **Camera Selection**
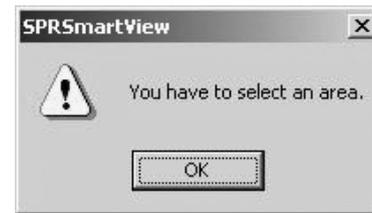
    : Select the camera to search.

    ▶ The search in part in available only when one channel is enlarged. Then, you can
       select only channel for the camera.

Designation of a Part to Search

: Designate the part to search on the screen.

▶ To search the changed image in a specific area of the selected camera, it is required to designate the part of the image to search.

Time Selection

: Select the starting time and Ending Time to search a specific area of the selected camera.

▶ Selecting time is to display the graph of the data related to the motion detected in the selected part of the image.

☞**[Notice]**

If many motions are dectected in the selected part from 00 to 24, it may take long to extract the data on that part. Therefore, it is recommanded to select thetme zone to search.

Display of graph in a Designated Part

: Display the graph of the data related to the motions detected in he designated part of he selected camera during the selected time.

▶ When you select the graph display button, the processing screen is displayed while the data

Stop Graph Display

: Stop the display of a graph and extraction of data related to motions.

▶ If you select [Stop] button while data related to motions on the selected part is searched, only the graph of searchred data is displayed in the graph part.

Display tje graph of the searched data in a seleced part.

: If the data search related to the motions is completed, the yellow graph of the searched data is overlapped on the exiting graph this is previously saved.

▶ To search the changed image in a specific area of the selected camera, it is required to designate the part of the image to search.

Graph for the searched data in a selected part.

Start the search of a selected part

: Search the data graph of a selected part by time setting and area setting of a selected camera.

▶ Select the displayed graph of a selected part and press Play button, and you can immediately search only the images on the parts where the motions are detected.

☞**[Notice]**

The minimum unit for the display on a graph is one minute. And the squential data is displayed. However, during the actual search, the data may not be sequential according to the recording by motions.

V

Appendix

1

Formatting a CD using Direct CD

◢ **[Formatting CD using Direct CD]**

When you try to backup on an unformatted CD or in case where the message of backup failure has shown, format the CD as follows.

※ Below contents is based on Direct CD v5.1. If some other message comes up, please refer to Direct CD manual.

◢ **CD format and backup**

① Select [Media Select] button in "Backup Media" -> Select CD-R/RW drive in "Local Drive" -> Click [OK]

② Insert empty CD-R/RW media and click [Format CDR/CDRW]

(If CD-R/RW drive is set as "auto" Direct CD program will run automatically.)

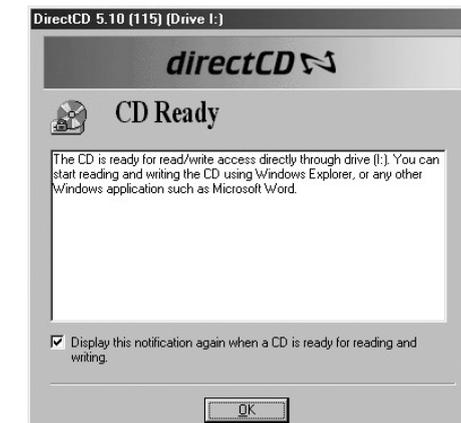③ Check if CD-R/RW is selected when the Direct CD format utility comes up, Direct CD and click [format CD]

④ When you see a "drive format" window, input a name to "Label" and click [Start Format] button
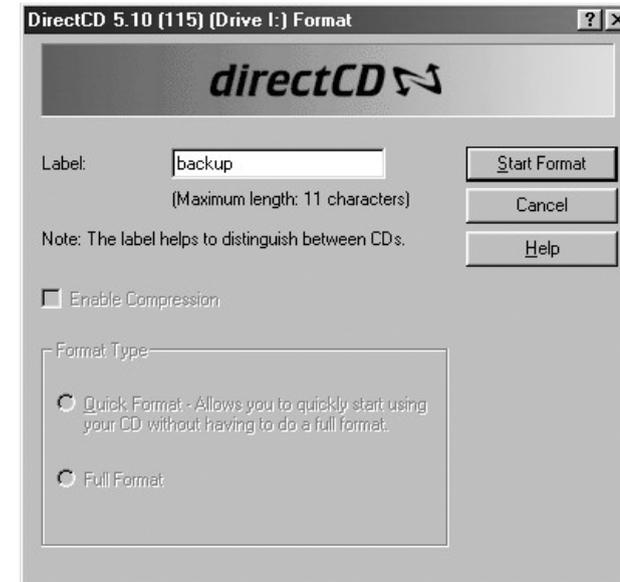
⑤ "Formatting CD.." Window will appear and starts CD-R/RW media format.
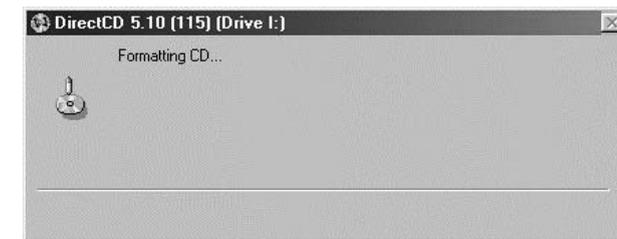
⑥ When the format is done, below window will appear saying "CD Ready". Then click [OK]

⑦ If Direct CD format utility windows come up, click this button ⊠ to close.
(Do not click [eject] button.)

⑧ Select the type, time, and camera for backup and click [OK] button.
"WRITE" LED of CD-R/RW will be turned on till CD writing is done.
Do not press button in CD-R/RW

⑨ Once the backup is done, click "Eject" button in CD-R/RW

⑩ "Direct CD Eject Options" window comes up, select "Close to Read on Any Computer" and click "OK" (If possible select "Protect CD so it cannot be written to again" not to re-write on CD-RW)
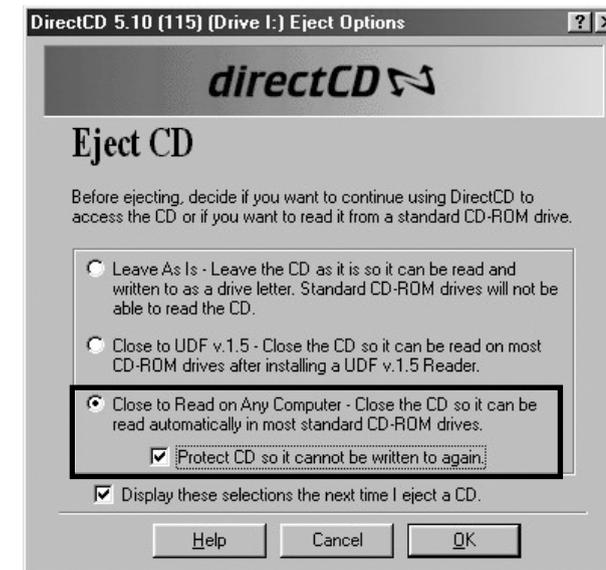
⑪ Below window will appear to close CD-R/RW media. Wait until this procedure ends.
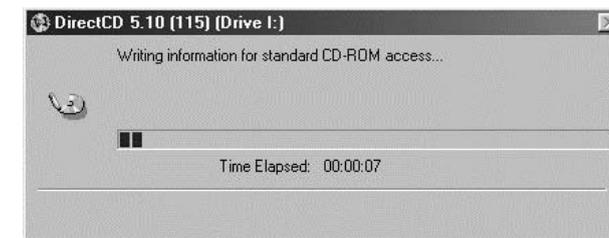
⑫ Once the above procedure ends below window will appear.
Then eject the CD-R/RW media and click [OK] button.

2

Formatting a CD using InCD

◢ **[Formatting CD using InCD]**

• When trying to back up date in an unformatted CD or receiving an error message after
trying to backup up, format the CD by the following procedure.

• insert a black CD, and click on "Format CDR/CDRW" from "Data Backup" window.
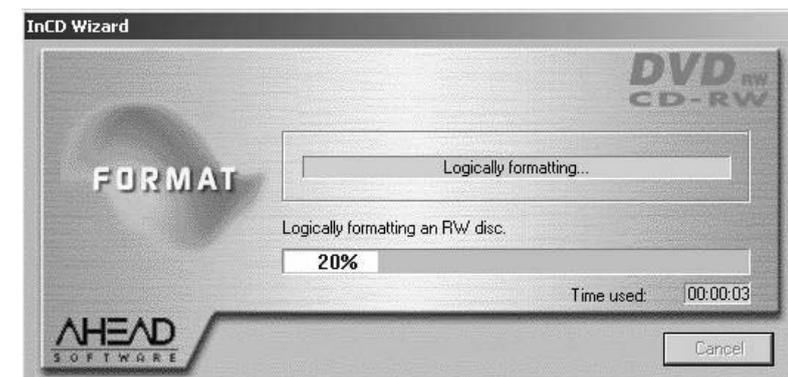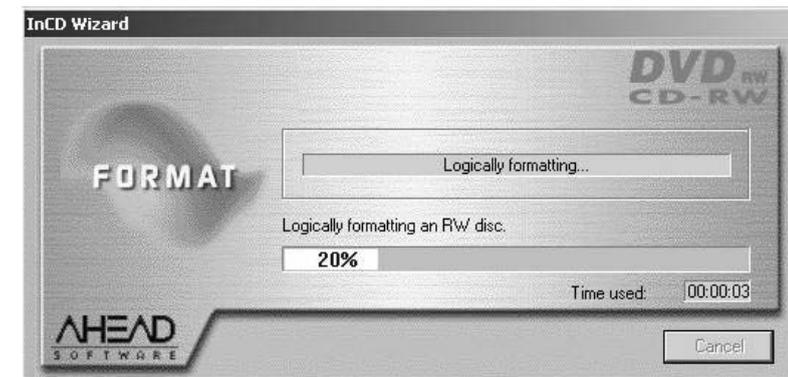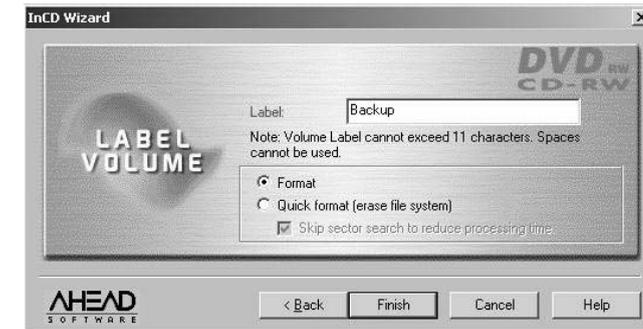Then, the following screen will appear. Click on the "Next" button.

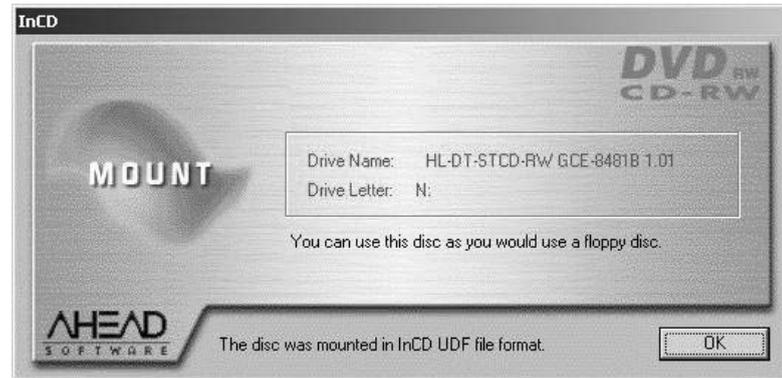• Drive selection window will appear. Click on the "Next" button.

• Set the CD name.
(If you do not want to define the CD name, simply do not enter the name. After entering
the CD name, click on the "Finish" button.)

• After the CD is completely formatted, the following window will appear.

(Click on the "Confirm" button to complete formatting.)

• After the CD is completely formatted, continue backup by the same method as those of the

hard disk or movable drives (DVD-RAM, ZIP, MOD, ORB, etc.)

• If a different message from the above i displayed, refer to InCD manual.

☞**[Notice]**

• To format a CD using InCD S/W, only CD-RW media shall be used. It is impossible to

format CD-R media using InCD S/W.

• The operating method and the setting screen differ by InCD S/W versions.

3 # Serial cable connection (input)

Connect to COM 1
Port
(9 PIN)

RS-232C Port
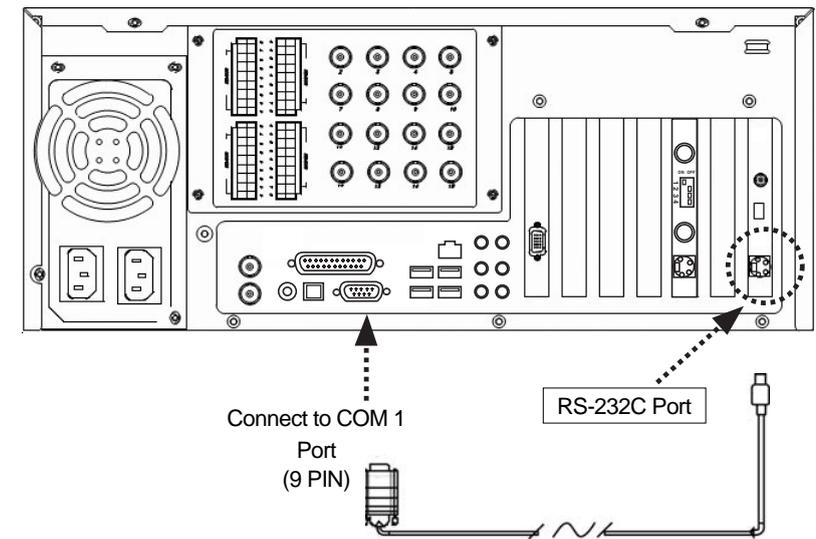
◪ **[Function of RS-232 Serial connection]**

• Enables Sensor function

• Enables Control function

• Enables P/T/Z function

• Enables Watch Dog function

• Enables External monitor output function (Depends on model)

[Notice]

Serial Cable must appropriately connected to COM1 Port and RS-232 in order to use the function above.

Control and Sensor, part of the product which is not supported by P/T/Z may not include Serial Cable. Connection will be provided only for the product that supports control and sensor.

If Serial Cable is not connected appropriately, system may not operate properly and even damage the system. Also, it may not recovered automatically.

(Product which is not supported by Control and Sensor, P/T/Z function uses its own auto recovery function.)

4 PAN/TILT Drive connection

[I/O Board]

EXTERNAL MONITOR

RS-422 connection
(from RX-Receiver)

RS-232 Connection
(from Com1 port)
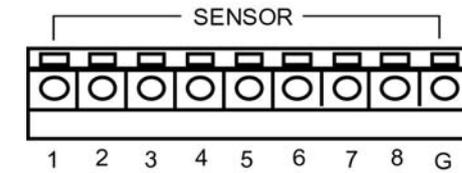
SIGNAL (+)

No Use
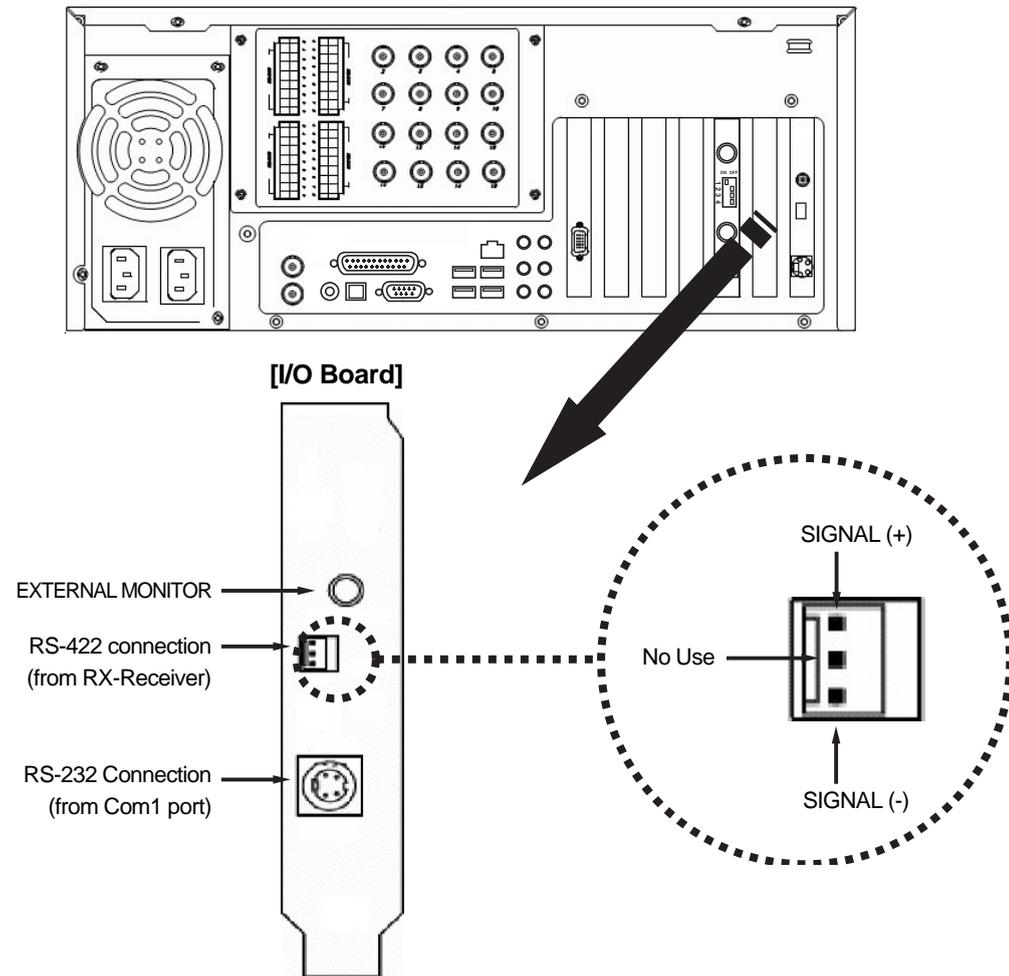
SIGNAL (-)

[Notice]
- Be cautious about (+),(-) of the signal line.
  Wrong connection of the signal line might cause damage.
- Please contact our distributor if you use other brand's RX Receiver.
- The communication distance of the RS-422 connection cable is 1.2Km. (The distance can vary according to the type of cable connected. The Twist 2C cable is recommended.)

☞ **[Note]**
- For the SPR-7116 Model, the external monitor connector on IO board is not operational, The external monitor connector on display board must be used.
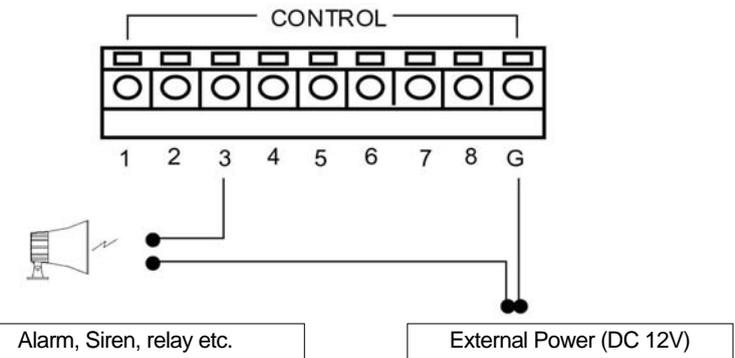
5 External Sensor input and Control output connection

SENSOR

1 2 3 4 5 6 7 8 G

One line of signal line for sensors such as infrared rays, heat perception, magnetic etc, should be connected to COM connector and the other line is connected to any sensor 1-8 connector which you selected.

[Notice]
Please use individual adapter for each sensor's power input.

CONTROL

1 2 3 4 5 6 7 8 G

Alarm, Siren, relay etc.　　External Power (DC 12V)

- When the linked connection and control by external sensor works linked control output connects to COM port. (setup->hardware->alarm) Control output related by external sensor
  ☞ it remains "NC" condition normally
  ☞ but it switches to "NO" when it starts sending control signal

[Notice]
The power of adapter should be no more than 12V and 300mA.
Additional external relay should be used to control on and off of device powered by AC input.

6

Install WebDVR

① Insert the SPR Smart View CD into the CD-ROM and duble-click on the folder where the SPR Smart View program is saved. When the following window appears, double-click on Disk1 folder.
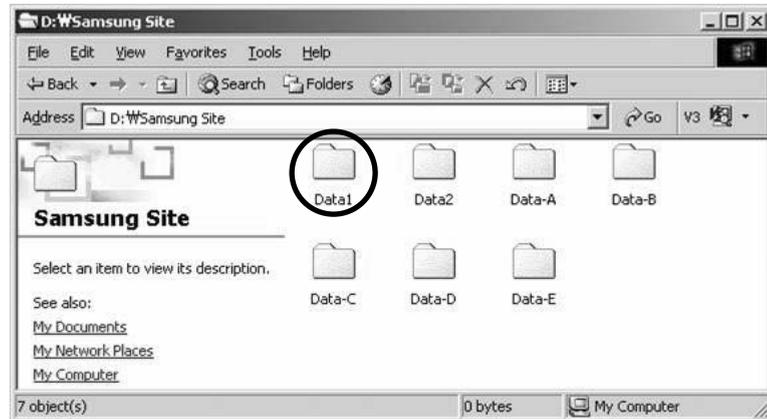
② Select "Setup"

(If CD-R/RW drive is set as "auto" Direct CD program will run automatically.)
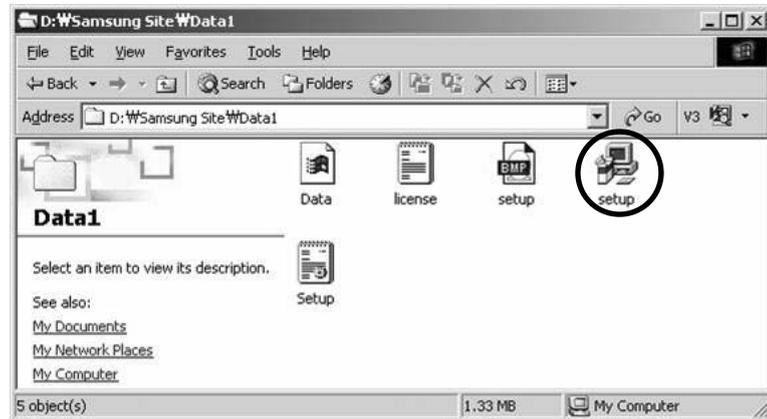
③ Click on "Next" button.

④ Check in "I accept this License Agreement" filed, and click on "Next" button.

⑤ Select the path to install the SPR Smart View program, and click on "Next" button.
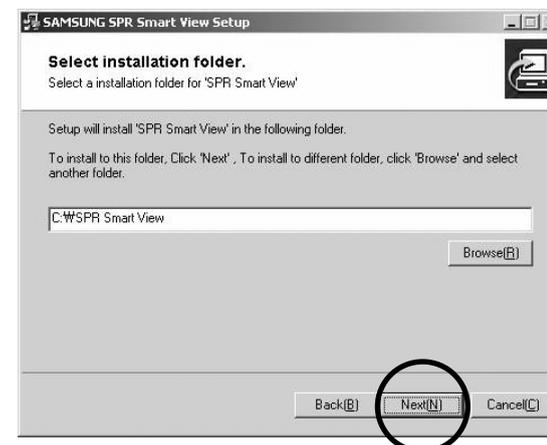
⑤ The program will be installed.
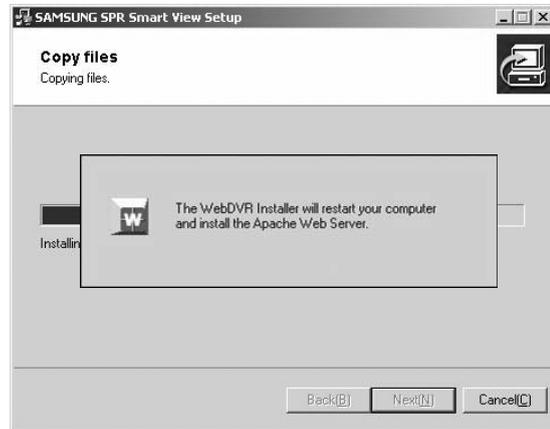
⑦ After "Installation is completed sucessfully" message is displayed, check in "Restart your computer" field and click on "Finish" button.

If "Restart your computer" field is not checked, the WebDVR program may not be completely installed.

⑧ The computer will be rebooted, and the WebDVR program will be completely installed before the user starts to run the program.
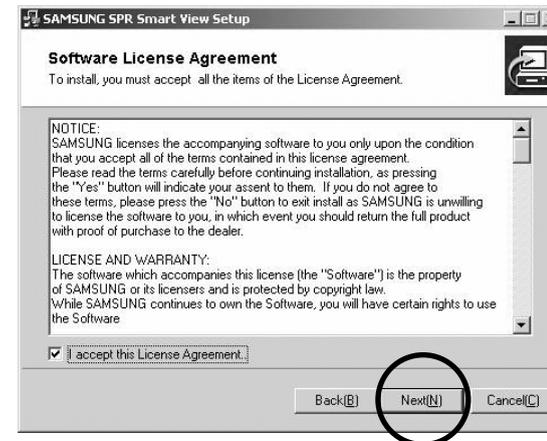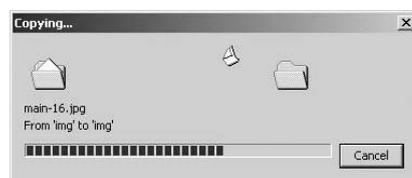

Apache HTTP server is to automatically started with the SPR Smart Viewe when the computer is computer is rebooted.

7 Installing PPP in Windows 2000

◢ Installation Procedure

① In most cases, a modem is automatically installed in Windows 2000.
(See the modem manual.)

② Select "Control Panel" and "Network or Dial-up Connection" folder. Then, click on "Create New Connection" folder.

③ Click on "Next"

④ Select "Dial-up private network" and click on Next as shown below:
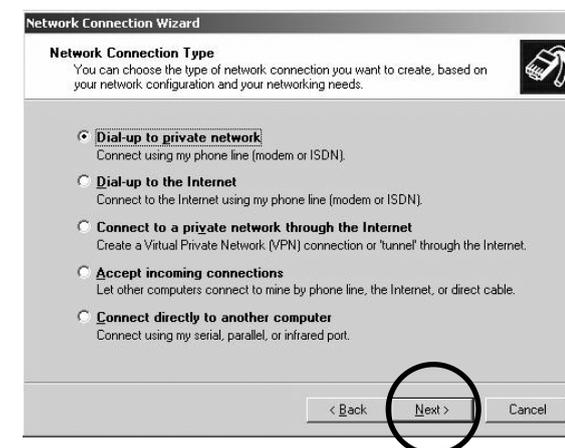
⑤ Select the modem installed in the system, and click on "Next".
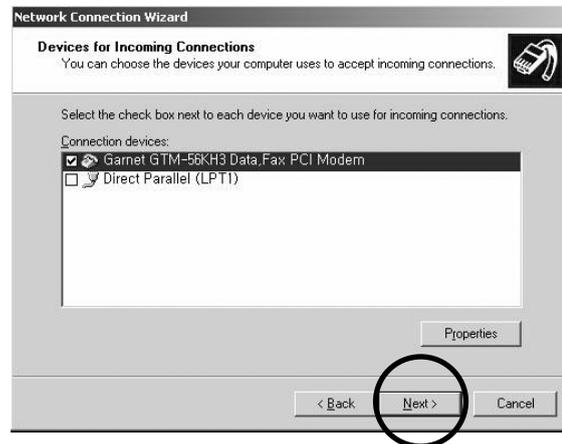
⑥ Click on "Next".
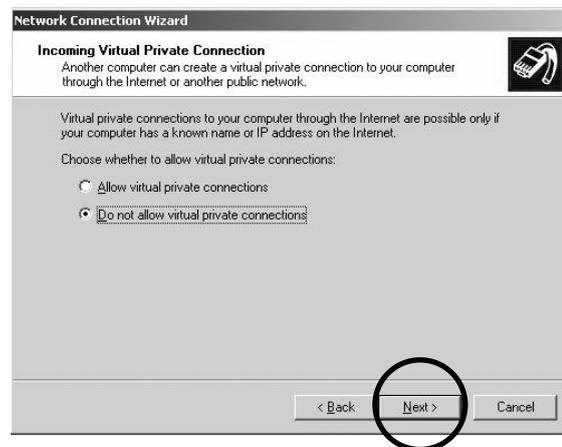
⑦ Select one of allowed users as a guest, and click on "Next".
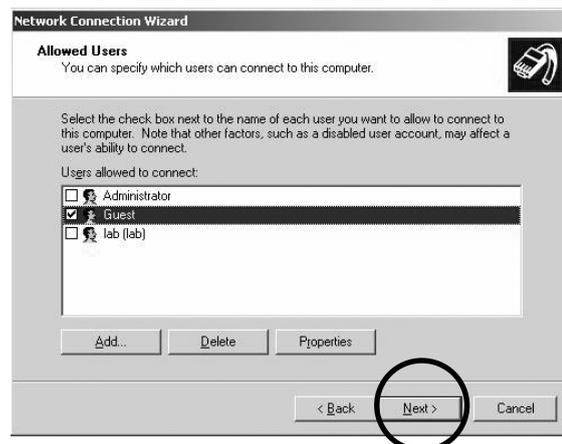
⑧ Select "Internet Protocol (TCP/IP)" from networking components list, and click on "Properties".
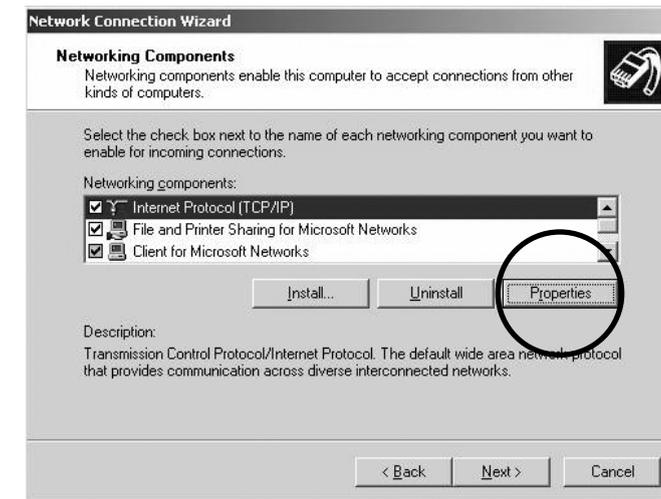
⑨ Make a setting as shown below, and click on "OK"
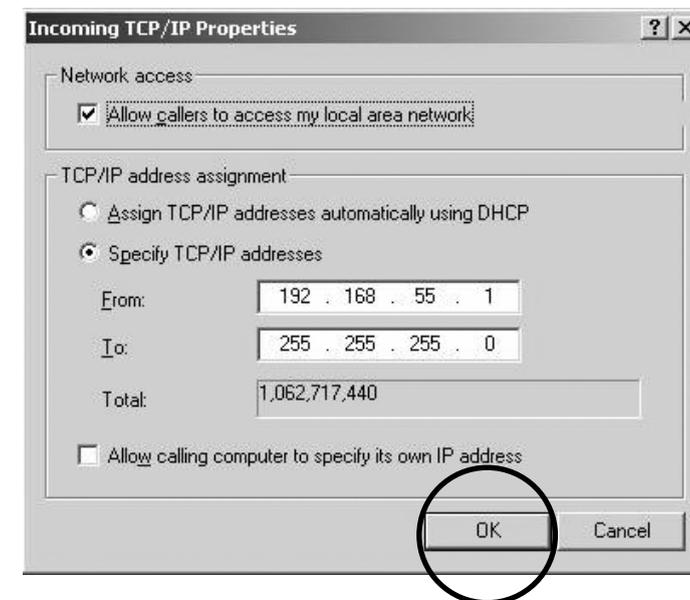
⑩ Click on "Finish".

⑪ Then, change the guest user as well as the password and the account.

(For more information about setting the account, see "Changing Guest User's Password"

in "Appendix".)

8 Setting Guest user, Password, and Account Options

◢ **Setting Account Passwords and Options**

① Select Control Panel, and double-click on "User and Password". When the following window

appears, select "Advanced" tab:
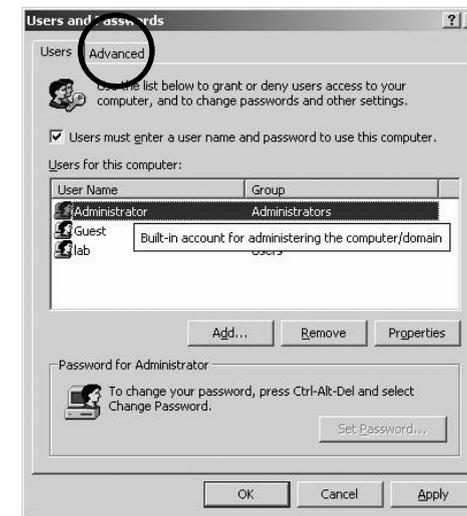
② Click on "Advanced" button in the following window:
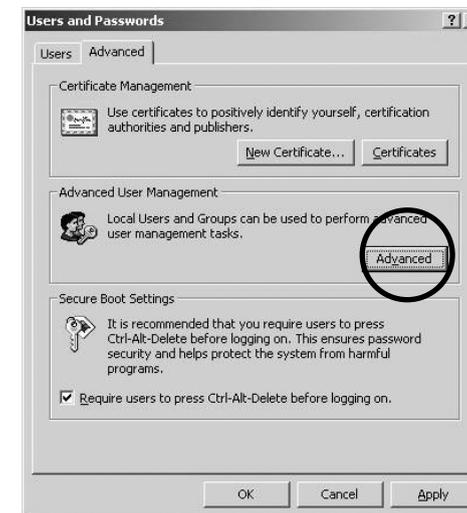
③ Select to view Properties of the guest user.

(Select a guest and right-click on it. Then, Propertices window will appear as shown below.)

④ If "Account is locked out " field is checked, uncheck this field. Click on "OK".

⑤ Select a guest user, and right-click on it. Select set password from the pull-down menu.

⑥ Type in "1234" in New password and Confirm password fields.

⑦ Now, you have completed setting a guest account.

9

SSC-2000 system keyboard

SSC-2000 System Keyboard is the controller to control the DVR by using a RS-485.

The user can operate a DVR conveniently as the user friendly on screen display, touch screen and

joy stick are applied to the system. (SSC-2000 available Rev. NO : Ver 1.5 or Higher)

Description

1 LCD Display

: This displays the active status of system keyboard.

2 Camera action related keys

- PRESET   - PATTERN

- SCAN   - AUTO PAN

3 Alarm release key

: This function is to force to stop the alarm output when an alarm sounds in DVR.

4 Joystick Controller (UP/DOWN/LEFT/RIGHT/AF)

: This function is used to move the action of Pan/Tilt connected to SAMSUNG Dome

Camera or Receiver unit up/down/left/right and control the action of Auto Focus. In

addition, this is used to control the action of Zoom by turning it clockwise or

counterclockwise.

(When controlling the DVR, this can be used as a mouse to select the menu displayed on

the screen.)

5 Camera lens related keys

- IRIS control (IRIS CLOSE / OPEN)

- FOCUS control (FOCUS NEAR / FAR)

- ZOOM control (ZOOM TELE / WIDE)

6 MENU KEY

: This is used to return to Menu mode in order to set each device.

7 Control Device selection keys (MON/CAM/MUX/DVR)

: This is used to designate Camera, Monitor, DVR, MUX Number etc.

8 Numeric key (0~9), ENTER key, CLEAR key

: This is used to designate Camera, monitor, DVR, MUX Number, Preset, Pattern Number etc.

9 DVR Control keys (SEQUENCE, MODE)

- SEQUENCE : If you select SEQUENCE button after changing over by 4 and 9 division

mode from the monitoring screen, the division screen shall be changed over

in sequence.

10 JOG/SHUTTLE

: When controlling the DVR, this enables to search the recorded picture of the desired time

zone by moving the search bar left/right from the DVR search screen.

11 DVR Reproduction related keys

: When searching the recorded picture from DVR search screen, this is used to move the

picture to the very first line or last line, or reproduce it in clockwise direction or stop it.

move to the first data of the selected date

stop

reproduction in clockwise direction/pause

move to the last data of the selected date

☞ [Notice]

-. Connect SCC-200 through the terminal of RS-485 or RS-422 in the rear of DVR.

-. Connect the signal(+) of the terminal of DVR RS-485 or RS-422 to Tx(+) of SSC-2000.

-. Connect the signal(-) of the terminal of DVR RS-485 or RS-422 to Tx(-) of SSC-2000.

-. For further information of SSC-2000, please refer to User's Manual of SSC-2000.

10

DVR CONTROL BY SSC-2000 KEYBOARD

1. After selecting [DVR] button from SSC-2000 system keyboard, enter DVR No. (0~255) of SPR Smart View which is interlocked with SSC-2000 keyboard by using the numeric keys and then press [ENTER] button.

DVR Control Screen (Surveillance mode)

## Configuration of Control Screen

❶ **DVR No.**

: This displays the no. of DVR connected to SSC-2000.

❷ **Model No.**

: This displays the model no. of DVR connected to SSC-2000.

❸ **Monitor No.**

: This displays the no. of monitor connected to SSC-2000. This is not used when controlling the DVR.

❹ **4 division screen**

: If you select [4div] button from the surveillance screen, the screen shall be changed over to 4 division screen.

❺ **9 division screen**

: If you select [9div] button from the surveillance screen, the screen shall be changed over to 9 division screen.

❻ **16 division screen**

: If you select [16div] button from the surveillance screen, the screen shall be changed over to 16 division screen.

❼ **Sequence changeover**

: If you select [Rotate] button from 4 division or 9 division mode, the screen shall be changed to the selected division mode in sequence.

❽ **Search mode changeover**

: If you select [Search] button, the password input screen shall be displayed from SPR Smart View screen.

Enter the password from the password input screen and select [OK] button, the screen shall be changed over to the search mode screen.

❾ **Emergency Recording**

: When the emergent recording is needed while monitoring, if you select [Emergency Rec] button, you can record all cameras regardless of the schedule. If you want to release the recording, select [Emergency Rec] button again and enter the password from the password input screen and then select [OK] button.

❿ **Alarm release**

: This function is to force to stop the alarm output, when an alarm sounds in DVR.

⓫ **Environment Setting**

: If you select [⚙] button to set the system, the password input screen shall be displayed for the system security.If you enter the password from the password input screen and select [OK] button, the screen shall be changed over to the system setting screen.And LCD screen of SSC-2000 keyboard shall be changed over to the screen as below.
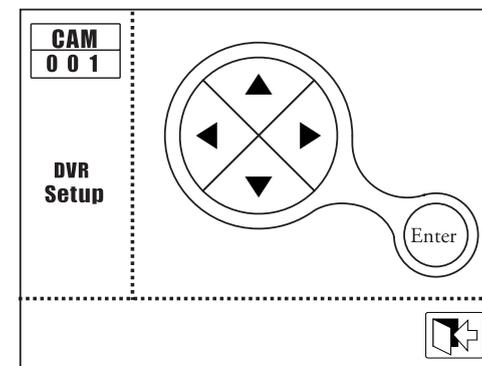

For direction button or [ENTER] button, you can use the direction button and [ENTER] button or Joystick of SCC-2000 keyboard by moving them up/down/left/right and even use AF (Auto Focus) button.

If you select [⬛] button, the screen shall be changed over to DVR control screen.

Channel selection

: If you select [CH] button, the screen shown as below shall be displayed.

If you select camera button, the picture of the selected camera shall be displayed on the screen

in full size from SPR Smart View screen. If you select the selected camera button again, the screen
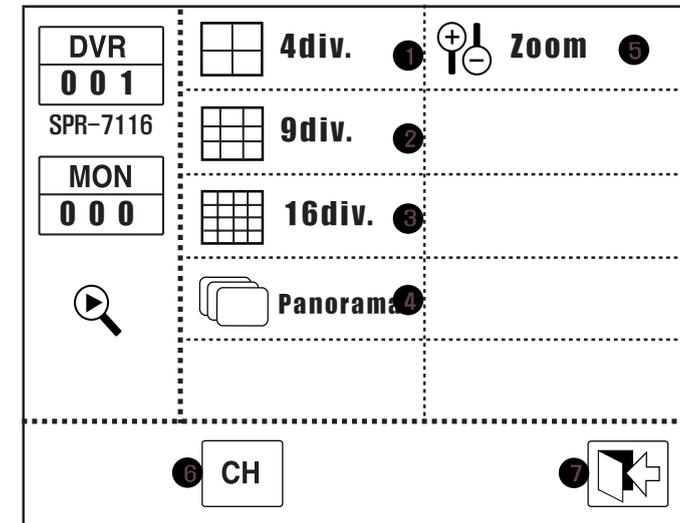
shall return to the previous screen.

If you select [🔲] button, the screen shall be changed over to DVR control screen.

DVR **0 0 1** SPR-7116	Select Channel			
	1	2	3	4
MON **0 0 0**	5	6	7	8
	9	10	11	12
	13	14	15	16
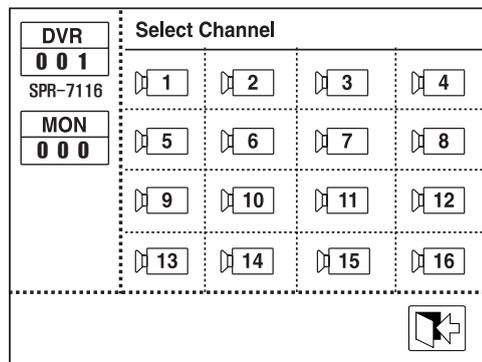
DVR control mode close

: If you select [🔲] button, you can exit from the DVR control DVR.

DVR Control Screen (Search mode)

DVR **0 0 1** SPR-7116 MON **0 0 0**	▦ **4div.** ①	⊕⊖ **Zoom** ⑤
	▦ **9div.** ②	
🔍	▦ **16div.** ③	
	🗐 **Panorama** ④	
⑥ CH		⑦ 🔲

Configuration of Control Screen

❶ **4 division screen**

: If you select [4div] button from the surveillance screen, the search camera shall be selected by
4 channel unit.

❷ **9 division screen**

: If you select [9div] button from the surveillance screen, the search camera shall be selected by
9 channel unit.

❸ **16 division screen**

: you select [16div] button from the surveillance screen, the search camera shall be selected by
16 channel unit.

❹ **Panorama**

: When you search the picture after selecting one camera, this function shows the selected pictures
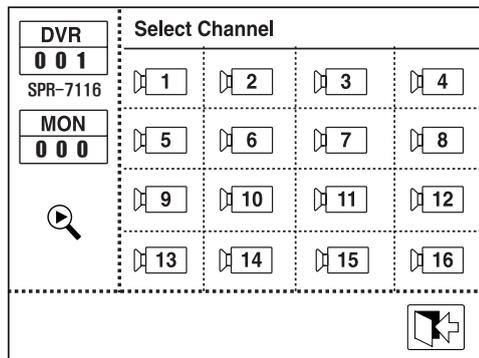on each division mode in sequence.

❺ **Zoom**

: If you select [Zoom] button, the captured pictures can be enlarged or reduced. In addition, this
function provides 5 steps of picture enlargement.

⑥ Channel selection

: If you select [CH] button, the screen shown as below shall be displayed.
You can select the desired camera or search among no. 1~16 cameras.

If you select [🔲] button, the screen shall be changed over to DVR control screen.

DVR	Select Channel			
0 0 1	▷ 1	▷ 2	▷ 3	▷ 4
SPR-7116				
MON	▷ 5	▷ 6	▷ 7	▷ 8
0 0 0				
⊙	▷ 9	▷ 10	▷ 11	▷ 12
	▷ 13	▷ 14	▷ 15	▷ 16

⑦ DVR control mode close

: If you select [🔲] button, you can exit from the DVR control DVR.
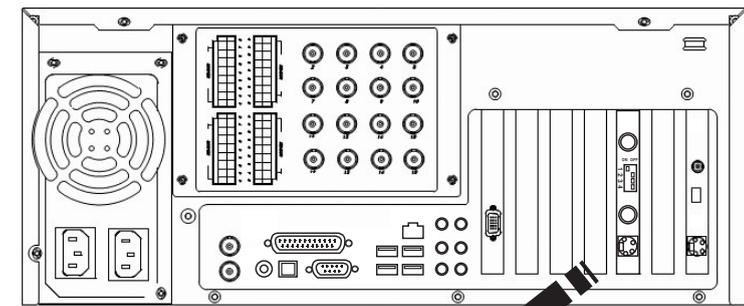
11 External monitor 2 output quality control

When using an external monitor over a long distance the quality of the picture can be reduced, also the picture might shake or have some interference. This is because the power of the signal can drop over a long distance.

To overcome this problem you can use the control switch on the back panel of the DVR

<SPR-7116 Model>

[Display Board]

External monitor 2 ⟶

External monitor output
Control switch ⟶

Spot monitor 1 ⟶

S-VIDEO Connection ⟶

ON OFF

1 2 3 4
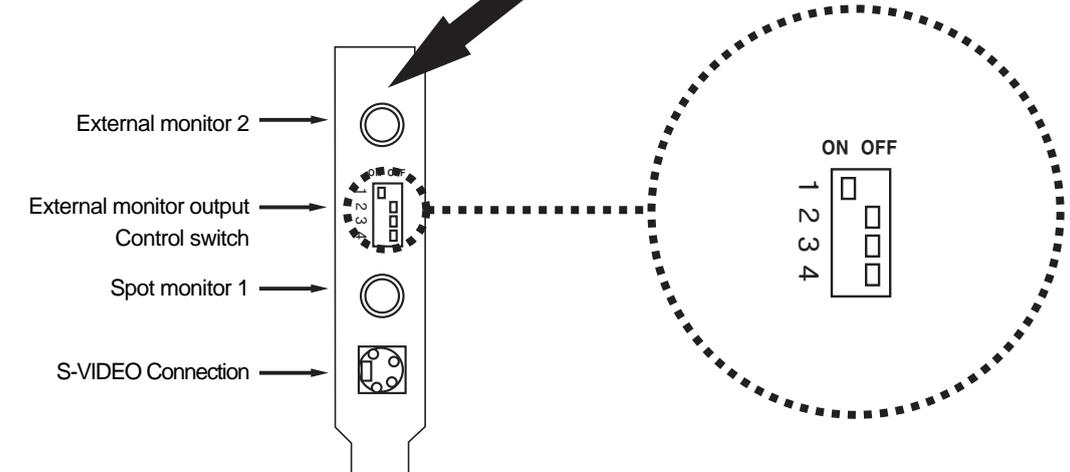
⚡ **[Warning]**
External monitor setup function only can be applied to external moniter output 2, not external monitor output 1.

<SPR-7416 Model>

[Display Board]

External monitor

External monitor output
Control switch

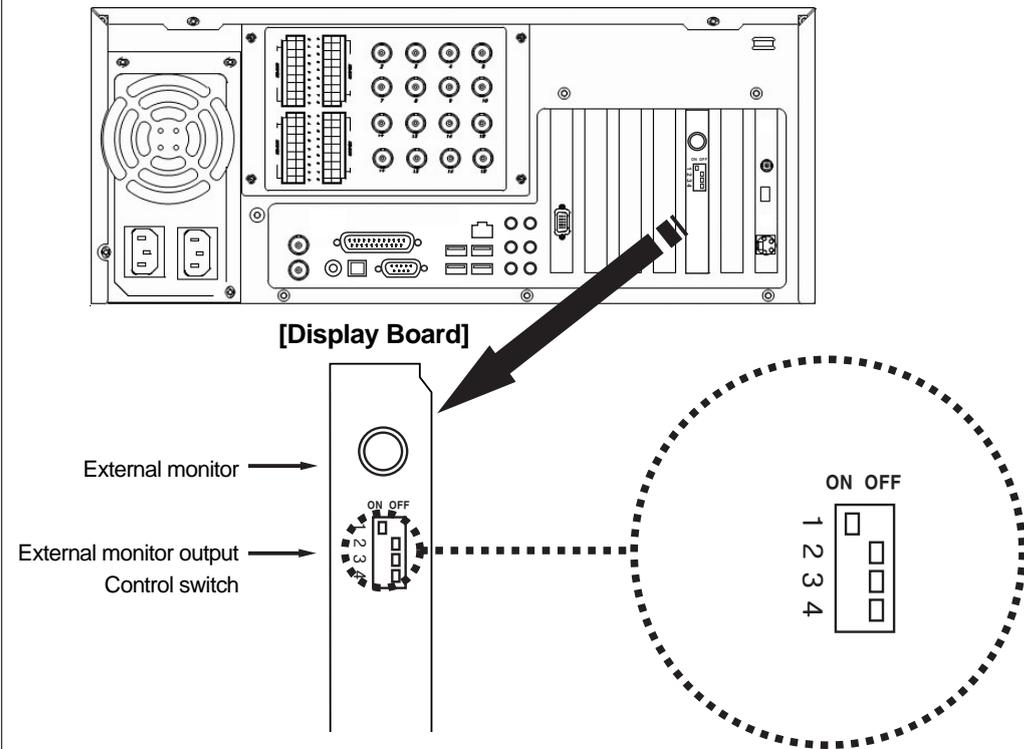ON OFF

1 2 3 4

ON OFF

1 2 3 4

The distance between the DVR and external monitor should be measured then you can change the control switch on the back of the DVR accordingly. There are 4 level settings for the difference distances between DVR and Monitor so you can select which gives the best picture.

1	For 100 meter distance select dip switch setting one.
2	For 200 meter distance select dip switch setting two.
3	For 300 meter distance select dip switch setting three.
4	For 400 meter distance select dip switch setting four.

[Warning]
The set-up must be with only one switch turned on at a time. If the all switches are turned off there is no signal output to the external monitor.

☞ [Notice]
- If the distance is 500m or if the installation environment is not good then the picture display quality will be reduced.
- The distance between 100~400 have been tested but the actual distance can be changed depending on weather and line condition.

☞ [Notice]
For the SPR-7116 Model, the external monitor connector on IO board is not operational, The external monitor connector on display board must be used.

VI

Specification

1

Specification

◿ Main Spec.

- CPU : Intel P-IV 2.8Ghz (Depends on the user)
- Main Memory : DDR 512MB
- VGA : ATI (128MB)
- HDD : 250GB
- O/S : Windows 2000 Professional
- LAN : Realtek 10/100 MB

◿ Video Input

- 16Ch Composite Video (NTSC/PAL)

◿ Video Output

- Output from PC and normal monitor SPOT

◿ Recording Speed

- SPR-7116 : Max 120 Frames/sec
- SPR-7416 : Max 480 Frames/sec

◿ Compression Method : Modified H.263

◿ Compression Rate : Ave. 2.5KB/F (320x240)

◿ Auto Switching

- 1~10 sec

◿ Playback Display Mode

- Simultaneously reproduce each channel from 4, 9, 16 split screen

◿ Sensor Input

- Input 16ch

◿ Display Speed

- 1, 4, 6, 9, 16 split screen, full screen
  SPR-7416 : 480 Frames/sec, 16Ch Monitors Real time, 480 Frames/sec Recording Real time
- 1, 4, 9, 16 split screen, full screen
  SPR-7116 : 480 Frames/sec, 16Ch Monitors Real time, 120 Frame/sec Recording

◿ Alarm Output

- Output from 16 NI/NO

◿ Motion Detection

◿ Camera/Sensor

◿ Pan/Tilt/Zoom Control

◿ Transmission speed

- PSTN : 1~5 Frames/sec, LAN : 30 Frames/sec (Max), ISDN : 3~10 Frames/sec

◿ Back Up

- Auto/Manual Back up through CD-RW, DVD, Network Drive

◿ Configuration and size

- Product : 431(W) x 177(H) x 459(D)

◿ Power :

- Domestic : AC100-240V~, 5Amax, 60Hz
- U.S/Europe : AC100-120/200-240V~, 5/3A, 50-60Hz

◿ Weight : SPR-7116 : 18kg
SPR-7416 : 18.5kg

VII

Q&A

The system is not powered on and LED status indicator is not operated.

→Check if the power is connected properly.

→Check the voltage of power supply.

→If the power is not on after checking the two items above, then inspect or replace the power supply.

LED status indicator is operated and the beep sound is heard but, monitor screen is not output.

→Please check if the monitor power cable is connected exactly to the connection cable. This kind of condition may occur when the contact condition of the monitor connection cable connected to the VGA card is not good.

When the system is turned on, window is not executed while the message, "Verifying DMI Pool Data…" or "Invalid system disk, Replace the disk,.." is output.

→The window may not be executed and the message is output while a part or entire of system file is damaged in the drive that the window is installed. Please consult to the place you bought the system and replace HDD.

The system is rebooted automatically while SPR Smart View program is executed.

→That is the normal function of the computer. "Display Set-up Restoration Function" is one of the functions included in the SPR Smart View product. In case the display adapter installed in windows system is not properly set up, it reboot the system automatically by changing the set-up.

The system is rebooted early in the morning, periodically.

→That is the normal function of the computer. You can set up the option in SPR Smart View Program to reboot automatically at a certain time for the safety of the system. The restart time can be changed in the "system restart time" item which is shown by selecting "set-up" button and "system" tab. (It is set up as 03:00 am basically at the time of product delivery.)

The system is rebooted every 10 minutes.

→Check if the Serial Port connection cable connecting COM1 port to I/O Card, is sticking in the back of the system. SPR Smart View system has the function that reboots the system every 10 minutes when Serial Port is not connected, for the safety of the system.

The video is input but some of the channels is not output and blue screen appears.

→Check if there is something wrong in the video of relevant camera number connected to the system. This kind of condition may occur when video of camera is not input properly.

→Be sure that the power is supplied to the camera normally.

→Check again if the video line connected with the camera and SPR Smart View system.

→This kind of condition may occur when the video signal which is output from the VDA(Video Distributing Amplifire) is weak while the video is connected to the several systems. By connecting the video of the relevant camera to the SPR Smart View system, you can confirm/solve the causes of the problem.

The tone of color or video from some of the cameras appears abnormal.

→Check if there is something wrong in the video of relevant camera number connected to the system. Check the problems of the camera or SPR Smart View system, by inputting the number of damaged camera and of normally output camera alternatively.

→Check the type of the camera. The video type of the camera includes PAL mode, NTSC mode and SECAM mode according to each countries standard and the video process methods varies based on video transmitting methods of each camera. In this case, you will have a difficulty in distinguishing the video properly. Be sure that video type of the camera and setup-system-the others-video format" item is in accord.

Warranty Guide

This product has passed thorough quality control and test, and if this get broken during normal use we provide 12 months warranty service.

Warranty Guide

- Check this warranty sheet first.
- Please contact the distributor after checking out any defect in the product.
- The standard for repairing, replacement or reimbursement follows Customer

Warranty Content

- Any defect under normal use within the warranty service period we give you free repair service according to the warranty sheet.

- We charge you with the fee of parts and service despite free warranty service period.
  1. Any breakage made without care.
  2. Breakage or trouble made by natural disaster.
  3. Breakage or trouble made by breaking the product guide or manual.
  4. Breakage or trouble made by wrong power voltage or frequency.
  5. When you want to reassemble for full system or replace parts within warranty service period.
  6. When unauthorized engineer modified or made damage on the product trying to repair it, we may
     charge] you with the fee.

- We don't support the breakage after warranty service period. If the customer wants to get it repaired, we charge them with the fee.

Product Warranty Service Sheet

Product & model name		
Product Serial Number		
Distributor		
Date you purchased		
Warranty Period		1 year from the purchasing date
Customer	Name	
	Address	

- This warranty sheet may not be provided again.
- Please get this sheet filled when you purchase the product.
- You should show this warranty service sheet when you get a warranty service.