Stand Alone Type

**Digital Video Recorder** 

# **USER'S MANUAL**

# (Real time recording 8 & 16 CH DVR)

**Revision Date : 2010. 6. 30.** 

# INDEX

1.	Front Panel 3
2.	Rear Panel 4
3.	Start Up 5
4.	On Screen Menu6
5.	System Setup 6~13
	1) Display Setup7
	2) Camera Setup8
	3) Audio Setup9
	4) Alarm Setup9~10
	5) System Setup10~13
	6) Disk Management Setup13
6.	Record Setup13~15
	1) General Setup14
	2) Normal Setup14
	3) Alarm Setup15
	4) Motion Setup15
	5) Panic Setup15
	6) Schedule Setup15
7.	Search16~17
	1) Calendar Search16
	2) Event Search17
8.	Archiving18
	1) Normal archiving18
	2) By Event archiving18
9.	Book Mark19

=

# 1. Front Panel



- 1 POWER : System Power On/Off
- 2 DISPLAY : Select Screen Division Mode or Sequence Mode
- ③ PTZ : Go to PTZ Camera Control
- ④ SEL : Go to Main Menu or Select the menu
- 5 SEARCH : Go to Search Mode for Playback Recorded Data
- 6 USB PORT: USB port to use the USB memory stick or USB mouse
- ⑦ EJECT : Eject CD/DVD Rom
- (8) Channel Select button : Select Channel
- ⑨ ■/EJECT : Stop and Eject CD/DVD
- $\textcircled{10}~\parallel$  : Pause Live or Play ack screen
- ①. ◀ : Reverse Play
- 12.► : Play
- ③ : Panic recording

# 2. Rear Panel



- ① Video In: BNC Video Input Port
- 2 DC 12V Power Input
- ③ Ethernet Port : 10/100 Ethernet LAN/WAN connection (for Remote Access and Configuration)
- ④ USB Port: USB Port for use of a USB Memory Stick and/or USB HDD Backup
- 5 Alarm : 16 x Input TTL Alarm/Sensor Input Terminal
- 6 Relay : Relay output Terminal
- ⑦ RS-485 port : RS485 data+ data- Terminal. (for use of PTZ camera)
- 8 VGA OUT : VGA Main Monitor Output
- 9 Spot out : Output to Spot Monitors
- 1 Audio Out : RCA Audio Line Out
- 1 Audio In: 4 x RCA Audio Line Input
- 2 Analog Video out : Video out same as VGA monitor without GUI

# 3. Start Up



After startup process is complete, login window appears. (Default password is "0". Then, click the "OK" button.)

If you move your mouse or cursor at the bottom, you can find the menu bar.



# 4. On Screen (Mouse right button) menu

	Search	Þ
	Quick Search	•
	Mode Select	۶.
	PTZ	
CARLING STREET, STREET	Panic Record	
	Live Pause/Start	
PS/04/2010 10:30:43 AM	Sequence Start/Stop	

- Quick	Search : you can go few sec/min ago. This is single playback while other channels show live
- Mode	Select : Live Channel Division Selection
- PTZ :	PTZ Control Menu
- Panic	Record : Panic Recording Start/Stop
- Live Pa	ause/Start : Live Screen Pause/Start
- Seque	ence Start/Stop : Live Screen Sequence Start/Stop

# 5. System Setup - Display / Camera / Audio / Alarm / System / Disk





Click "SETUP"



# 5-1) Display Setup

Set up sequence of main, spot monitor, motion trace, popup for alarm or motion. Also choose OSD language. Auto log off makes DVR log off automatically if there is no operation on DVR for more than 2 minutes.



Click "Select Camera" and choose the channels for sequence & spot out dwell



It is very easy to shift menu by clicking the menu icon on the right side like a shortcut on PC.

## 5-2) Camera Setup - Title / Color / PTZ

🔊 Camera				
		Tree	Covert	Motion Area
100	#1	CHI	<b>G</b>	🔁 🦾 Area Setup
dear and a second second	#2	CH2	C(f	Area Setup
Celer	#3	CH3	E Cff	Area Setup
	#4	CH4	Cff	Area Setup
PTZ	#5	CHS	Cit	Area Setup
	#6	CHB	Cff	💽 🛛 Area Setup
		CH7	<b>2</b> 017	Area Setup
	#8	CHB	Ciff	Area Setup
	#9	CH9	E .0#	Area Setup
	#10	CHID	Cff	Area Setup
	W11	CH11	Ciff	Arela Setup
	#12	CH12	CH CH	Area Setup
	#13	CH13	CIF	Area Setup
	#14	CH14	Ciff	Area Setup
	#15	CH15	Ciff	Area Setup
	#16	CHIE	= or	Area Setup

<u>Title</u> : Make the camera name using virtual keyboard.

Covert : Set up the covert channel.

<u>Motion Area</u> : You can set up the motion area for each channel. (Multiple sensitivities for multiple areas)

		Brighteness	Contrast	Tint	Color
Title	#1	50	50	50	50
		50	50	50	50
Color	#3	50	50	50	50
	#4	50	50	50	50
DT7	#5	50	50	50	50
F12	#6	50	50	50	50
		50	50	50	50
	#8	50	50	50	50
	#9	50	50	50	50
	#10	50	50	50	50
	#11	50	50	50	50
	#12	50	50	50	50
	#13	50	50	50	50
	#14	50	50	50	50
	#15	50	50	50	50
	#16	50	50	50	50

 $\underline{Color}: Adjust \ color, \ brightness, \ contrast \ using mouse \ wheel$ 

_	L.	٠		8	8	à.	Ň.	1	)	٠	٠		-		Y.	Ð	1	2	з
4	5	Ψ.	7	U	3		1	<	•	2	Ċ.	0	A	8	C.	D	ε	F	G
н	1	1	ĸ	L	M	Ν	Ō,	P	Q	R	ŝ	ĩ	υ	٧	W	F.	Y.	2	n
ŀ,	1	4			0	0	¢	ø	9	1	Ŷ.	n	1	I.	h.	I.	n.	n,	ŏ.
F	4	=	τ	1	ų	v	R	8	Ŧ	Ξ	ł.		1	-					
								e	6	18		10	a	1961		10	c	100	



Color is indicated by each sensitivities



<u>PTZ</u> : Set up preset & swing. Select address & Protocols according to PTZ camera installed



#### Press "PTZ" button

## 5-3) Audio Setup

J Audio				
	Live Audio Channel			
Audio	🖌 Audio1 🚽	Audio2	Audio3	Audio4
	Network Audio Channel		None 📐	
	Network Audio Channel		None 📐	

There are 4 Audio In and 1 Audio Out. Check audio channel for living audio monitoring and network audio

### 5-4) Event Setup – HDD / Alarm In / Motion / Video Loss

🗊 Event			
	S.M.A.R.T Alarm	On	N
HIND	Check Interval	24 hr	
121220	Alarm Out	None	
Alarm In	Duration	300 Sec	

<u>HDD</u>: SMART alarm gives warning when there is something wrong with HDD. You can select check interval, alarm out and duration.

🔹 Event	D					I	<b>Q</b> 0	9
*		Relay	Type		Mode		UBet	
100	Alarre 1	OUTI	N/O		Latched .		3 Sec	N
	Alarr 2	0071	140		Satched .		8 Sec	N
COLUMN AND AND AND AND AND AND AND AND AND AN	Alem 3	DUTE			Latered	A.	12 Sec	15
NUMPER.	Allarm 4		N/G		Latzted		# Sec.	5
1066	Pilarre T	Norse	N/O		Transparent		1.5ec	5
Motion	Alerre B	TTUD:	N/C	N	Latited		3 Sec	15
	Aure 7	None	N/C .		Transparent		1540	8
Video Loss	Alarre 0	None	NO.		Latined		2.5ec	5
	Marre 3	-OUTI	NG.		Transperset		1.5ec	N
	Alarm 10		NO	N	Latified		8 Sec	N
	Alarm 11	OUTI	N/C	L.	Latened		7 546	15
	Alarm 12	OLITE	NO:		Transparent		1 Sec	Š.
	Aleren 13	DUT!	N/C		Latited		10 Sec	5
	Alarm 14	TUO	1912	N	Transparent		3 Sec	N
	Alarm 15		NO.	N	Transparent		8 Sec	N
	Atam 10	None	NO:		Latched.		8 Sec	Ň

<u>Alarm In</u> : Link any of alarm in to alarm out in Relay

Select N/O (normal open) or N/C (Normal close) for alarm out and Mode – "Latched" or "Transparent"

Alarm in #1- #16 are fixed to channel #1-#16 with sequence.

Y				
		Relay	Set	
HDD	Ch 1	OUT 1	35 Sec	
HDD	Ch 2	None [	1 Sec	
Approximate (	Ch 3	None [	7 Sec	
Alarm In	Ch 4	OUT 1	20 Sec	
(Marketer)	Ch 5	OUT 1	12 Sec	
Motion	Ch 6	None [	6 Sec	
and the second	Ch 7	None	8 Sec	
Video Loss	Ch 8	OUT 1	15 Sec	
	Ch 9	None [	4 Sec	
	Ch 10	OUT 1	13 Sec	
	Ch 11	None [	9 Sec	N
	Ch 12	OUT 1	16 Sec	N
	Ch 13	OUT 1	16 Sec	
	Ch 14	None [	10 Sec	
	Ch 15	OUT 1	10 Sec	
	Ch 18	None <b>r</b>	8 Sec	N

<u>Motion</u> : Link motion on each channel to alarm out in Relay and set up the duration.

🗈 Event									)
		Loss		Pre Tim	•	Relay	-	Set	
HDD	Ch 1	Un		2 Sec		0011		296 Sec	
	Ch 2	Un		3 Sec		0011		295 Sec	D
Alarm In	Ch 3	On		1 Sec		OUT 1		300 Sec	
	Ch 4	On		1 Sec		OUT 1		296 Sec	Ν
1000	Ch 5	On		3 Sec		OUT 1		20 Sec	Ν
Motion	Ch B	On		2 Sec		OUT 1		9 Sec	Ν
	Ch 7	On		0 Sec		OUT 1		9 Sec	E
Video Loss	Ch 8	Off		0 Sec		None		1 Sec	Ν
	Ch 9	Off		0 Sec		None		1 Sec	Þ
	Ch 10	On		2 Sec		OUT 1		14 Sec	N
	Ch 11	Off		0 Sec		None		7 Sec	N
	Ch 12	On		2 Sec		OUT 1		298 Sec	E
	Ch 13	On		1 Sec		OUT 1		2 Sec	N
	Ch 14	On	N	1 Sec	N	OUT 1	N	299 Sec	N
	Ch 15	On	N	2 Sec	N	OUT 1		291 Sec	N
	Ch 16	On	N	1 Sec	N	OUT 1		2 Sec	N

<u>Video loss</u> : For video loss event, select pre recording time (before the event), relay, duration.

# **5-5) System Setup - Time & Date / IP Address / DDNS / Dual Stream / SMTP / Permission / Information / Log**

🔯 System	)	모 💿 J 🖡 🕸	Time & Date : Select time & date format according to your region.
Time&Date	Time Date Date Format	06/29/2010 05:05:03 PM	Register Time server on
IP Address	Time Format	AM/PM	internet and use is as NTP server.
DDNS		time.bora.net	If you click "Sync " button, DVR will be
Dual Stream SMTP	Daylight Saving Time	Asia/Seoul (GMT+09:00)	accurate time from NTP server.
User			You can choose the time
Information			zone.
Log			

🔯 System		Ģ	0
Y			
Turent	Туре	STATIC Max TX Speed 5000	Kbyte 🔼
Time&Date			
IP Address	IP Address	155.40.238.211	
	Gateway	211.238.40.129	
DDNS	Subnet Mask	255.255.255.0	
Dual Stream	WEB Server	😽 Enable	
CLUTD	WEB Port	80 Port	8
SMTP			
User			
Information			
0220			

#### IP Address :

Select either DHCP or LAN according to your network configuration and adjust transmission speed.

Input IP address, gateway and subnet mask.

🔯 System			
Time&Date	Service Provider	×	
	Domain Name	test.dyndns.org	=
IP Address	User Name	username	
TICKIC	Password		
CILITONS .	User Router	Off	
Dual Stream			
SMTP			
User			
Information			
Log			

Set your DDNS information

🕼 System							C,	0	<b>小</b> 明 1	10
Y										
		Туре		Size	Stream	n	PP8		Quality	
TimesDate	CH 1	h 264		CIF	On	b.	8	N	Highest	r
Tambologato.		h 264		CIF	On		13		Standard	C
IP Address	CH 3	h.264		CIF	On		5		Standard	C
20.000000000000	CH4	h.284		CIF	On		ă.		Low	Ċ
DDNS	CH 5	h.284	<b>N</b> .	CIF	On		4		Highest.	C
ALL	CHO	h 204		CIF	On				Standard	C
Dual Stream	CH7	h.284		CIF	On		6		Standard	C
and the second second	CH 8	h.264		CIF.	On		6		Highest	C
SMTP	СН 9	h 284		CIF	On		6		High	C
SIM WA	CH 10	h.264		CIF	On		6	N	Highest	C
User	CH 11	h.284		CIF	Ön	<b>b</b>	8		Highest	C
Pred and and and and and and	CH 12	h.264		CIF	On				Low	C
Information	CH 13	h.284		CIF	On		- 19		Low	C
1.22	CH 14	h.264		CIE	On		8		Low	C
-00	CH-15	h 264		CIF	On	<b>b</b> .			Highest	C
	CH 16	h.284		CIF	On	<b>b.</b> 1	8		Highest	E

#### Dual Stream :

Select fps and Image quality depending on your network condition.

For users who have low network bandwidth, we can use dual stream function.



<u>SMTP</u> : This is for email notification.

Register Email server name, ID and PW. You will receive email notification when events occur.

User: It is email address of user who registered email server for DVR

Password: It is password of user's email

From: It is name of someone who sends notification (user puts the name in)

To: It is email address of someone who will receive the notification (user puts the address in)

Type: Select the logs you want to receive via email.

Userd

Enable time: Search time which will be sent via email.



🔅 System			<b>P</b> @
TerrelDate	Fire variation	~ 10.0.9-100829	
P. Address	Video Expret Type Det Caperty	485.87 791.9 CH (47.9%)	
oc+is	Prata Average IP Address	Fram Average Columburg 190 198.0 5	
Ouid Deniers	PTW Upsele	Press	
8477	Rysleer Cate		
User-			
and the second se			
L00:			

Information : There are F/W, H/W, IP, MAC information, Disk capacity, IP address, Frame average. You can do F/W upgrade, factory default and save or load system data.

🔿 System			Q @ J & #
Tradicate	12 Page Log Reter	Log Tare	Constitutes
	19A	Bahay Bage Astron	BROOM OF BE DE PART
P Adman	100	Alter Log Dr Admin	BACIDICUTO DA DE 21 PM
	164	Passel On	E BRUDCUTOUS DE LE PM
ACRIE:	160	Power Cm	\$8000010.0x.38 13 PM
	160	Power Of Advin	9803501004 58 59 PM
Dad Directs	161	Period Of Allter	0800010-04-98 98 PM
	166	Setup Crist Jednin	80050000045852PM
1000	198	Setter Begin Admin	001303010 04 99 49 PM
	100	Playback End Acteur	0101000000004-55 16 PM
(town	167	Playnack they in determ	INCOMPOSITION 33 45 FM
	116	2 Danial Dina Alabia	INVESTITION STATIST
A Second Street	000	Bathar Begin Autors	DMC2001D DE ST 43 PM
	154	Admin Lag Oni Admin	UN0242010 0.6.5 ( 36 ( W
	103	Evelant Uner Lagi Ort Aamon	BN0300100451311W
	162	Default User Log On Amon	00/29C01004.1121104

Log : Each log can be traced with task name, user name and time.

## 5-6) Disk Setup

🕞 Disk				Check HDD information and format HDD
	Format Disk	SAMSUNG HD250HJ	Scan	
Format	Size	244.1 Mbyte		
	Progress			

## 6. Record Setup - General / Normal / Alarm / Motion / Panic / Schedule



Click "RECORD"



## 6-1) General Rec. Setup

-	Chi	Pre Recording Li	ne N	Recorde Limit Timi	1
Seneral	Ch 2	9		2 Week	19 19
	Ch 3	3	N	3 Month	
onunuous	Ch 4	3		1 Week	
larm	Ch 5	3		1 Day	
	Ch 6	0		2 Week	
otion	Ch 7	0		2 Month	
	Ch 8	3		1 Week	
nic	Ch 9	0		2 Week	
	Ch 10	3		1 Week	
chedule	Ch 11	0		1 Day	
	Ch 12	0)		3 Week	
	Ch 13	0		2 Week	
	Ch 14	0		2 Week	
	Ch 15	0		1 Day	
	Ch 16	0		3 Week	1

General set up affects all cameras` condition regardless recording mode such as alarm/motion/panic/schedule set up.

<u>Pre Recording Time</u>: select seconds of time for pre recording of events.

Ex> If motion is detected on ch 2(3sec)

At 10:00:05, recording will start from 10:00:02

<u>Record Limit Time</u> : time period of each channel's recording.

Ex> If set in 2 weeks, you always get

2 weeks of data.

## 6-2) Normal Rec. Setup

👤 Record		0123	4567	8 3 10 11	12 13 14 15 16 17	18 19 20 21 2	2 23	* Drag the time you want to setup on this timebar(0~23 hours) first
		Size	EE	s	Quality	Audio		Normal : Normal means recording setup
General	Ch 1	2CIF		6 🖸	Highest 🕨	#3		for continuous mode.
Contraction of the local distance	Ch 2	4CIF		25 🖸	Standard	#3		
Continuous	Ch 3	CIF		2 🔯	Highest 📐	#2		You can set up resolution, frame rate,
Alarm	Ch 4	4CIF		20 🖸	Highest L	#3		image quality by camera and time (hour).
	Ch 5	CIF		б 🖸	Standard	# 1		
Motion	Ch 6	CIF		4 🖸	Highest 🕨	#4		
	Ch 7	4CIF		4 🛛	Highest 🗅	#1		It is very smart because you can have
Panic	Ch 8	2CIF		12	Low L	#1		different recording setup between
	Ch 9	CIF		8 🖸	Highest 🗅	#1		important cameras and unimportant
Schedule	Ch 10	4CIF		8 🗳	Highest L	#3		
	Ch 11	4CIF		9 N	Highest 🗅	#2		ones.
	Ch 12	4CIF		4 🖸	Highest	#4		
	Ch 13	CIP		12 🖸	Low	#4		Same way for <u>Alarm, Motion, Panic</u>
	Ch 14	CIF			Low	# 4		recording setup
	Ch 15	CIF		10 10	Low	#4		
	Ch 16	CIR			LOW.	# 2		

### 6-3) Alarm Rec. Setup

#### 6-4) Motion Rec. Setup

#### 6-5) Panic Rec. Setup

🖢 Record		🖢 Record							y Record								
								- 1					मन्द्र		jah;		do.
and the second	Size FPS Quelty Audio					Quality	Au	in:	ieneral		DF.	М	19=	Σ	Honest	3	tere 🛽
General	061 407 🖸 18 🖸 Highest 🖸 #4 🖸	General		OF N	18 🖸	Highest	A #3				DF	N	1 Sec.	Δ	High	N.	ire 🚺
	Ch2 20F 🛛 13 🖾 Highest 🖸 #3 🖸			OF 1	22 1	Highest	N #1	N	ations .		40F	N	≅S≊	Σ	Highest	N	64 N
Continuous	Dh3 CF 🛛 20 🖸 Highest 🖸 #4 🗅	Cartinuaus		OF N	21 0	Het	A #2	L			42F	Δ	21.8=	Δ	Highest	L	#1 N
-	014 40F 🖸 13 🔯 Low 🖸 None 🖸			OF N	21 1	Highest	N #1	N	ar		F	N	358	Σ	Highest	N	ure 🖪
	Ch5 OF D 4 D High D #2 D	eam.		OF N	25 1	Sandard	A #2				DF	Δ	218=	2	figret	Δ	#2 L
lites	DHB OF D 5 D Low D None D			OF N	24 1	Highest	A #2		koon		225	M	193 <del>6</del>	Ζ	Stardart	L.	lore 🖪
	Chi? CF 🛛 & 🖸 Highest 🖸 #3 🖸			40F 🖪	18 0	Highest	A #1	L			- EF	L	11S≡	Σ	Low.	N	et 🚺
Panio	Dell OF D 5 D High D Hone D	Pater	018	OF N	25 1	Highest	L #3		55 (j. 1		DF	Ν	11S≡:	2	Line	N	vere 🛽
	Ch3 CF 🖸 1 🖸 Highest 🖸 #1 🖸			OF N	5 0	Sundard	N #3	1	100		D₹	Δ	11S=	E	Highest	N	¥1 🛛
Schedule	De 11 20F 🛛 S 🖸 Highest 🖸 Nove 🗅	Schedule:	0113	40F <b>N</b>	0 5	High	1 #3		oreave		DF	Δ	18 Ser	2	Highest	3	41 V
_	Chill CF D 7 D Hytest D #3 D			OF N	25 0	Sandard	N #2	N			Œ		115=	Δ	Lov	L.	lore N
	25:12 20F 🛛 6 🖸 Hgh 🖉 #3 🖸		Ch12	40F 🛯	8 D	Low .	N #4	N			OF	N	tfS≡	E.	Lox	N.	#3 L
	Chill 40F C 21 C Han C #2 C		Ch 13	OF N	25 1	Hotest	A #3	N			OF	Ν	21.9=	4	liget	Δ	#2 L
	Child OF C 22 D Highest C #1 D		Ch II	OF N	a N	Standard	N #1	N		2/15	0F	Δ	16.SEL	5	Highest	N	#1 L
	Child CF C 20 C Highest C #3 C		Ch 15	OF N	25 1	Standard	N #2	N		28	Œ	Δ	USE:	Ъ	Highest	U.	lare 🛛
	Chile CF C 25 C Highest C #1 C		Ch 18	OF N	25 1	8 Hohest	1 11	N			-211					-	

### 6-6) Schedule Rec. Setup

You can easily set up by dragging the table by continuous, alarm, motion, none.



# 7. Search - Calendar / Event



# 7-1) Calendar Search

#### Click "Search"



## ( Press the "SEARCH" button )



There is recording description such as Continuous, Motion, Alarm, Alarm + Motion and so on. Select **date** on calendar then **hour**, then **minute**. Playback can be done by every minute.

Click "Playback" and you can see the playback for all channels.

\*\* <u>Panorama Search</u> : Special search mode. If you click the "Panorama", It will show the playback frame by frame like panorama. You don't miss very short moment using this function.



## 7-2) Event Search

	193 Page	1 Page		
By Calendar	Event Log		13100	
an a	BookMark, #16, 04/23/2010 0	5:20:33 AM	NSS C	11/18
By Event	BookMark, #15, 04/23/2010 0	15:20:33 AM		
	BookMark, #14, 04/23/2010 0	15:20:33 AM		Entited and
	BookMark, #13, 04/23/2010 0	15:20:33 AM		
	BookMark, #12, 04/23/2010 0	15:20:33 AM	m 2 2 4	\$ DA 536
	BookMark, #11, 04/23/2010 0	15:20:33 AM		
	BookMark, #10, 04/23/2010 0	5:20:33 AM	745	
	BookMark, #09, 04/23/2010 0	15:20:33 AM	1-	and in case of the local division of the loc
	BookMark, #08, 04/23/2010 0	15:20:33 AM		
	BookMark, #07, 04/23/2010 0	15:20:33 AM	04/30/2010 09:50	):56 AM
			<b>H H 4 II &gt;</b>	N H
	Select Event Log			AVI Device
	Alarm 🖌 Motion 🖌 Boo	kMark 🚽 Panic	Device MW	R Memorette UFD
			Start Time	4/23/2010 05.20.33 AM
	Prev Page   Prev   Ne	oxt j Next Page	End Time 0	4/23/2010 05:20:42 AM

\*\* Event Search : This is very advanced and user-friendly function. Differently from other DVRs, when you click a log, DVR automatically shows video image of the very event log.

You can archive immediately if you want.

You can check event log & video and make a backup **on the same menu.** Backup file is made in AVI format.

## 8. Archiving - Normal / By Event





**Click "Archive"** 

#### **8-1) Normal archiving**

### 8-2) By Event archiving



Select date, time, file name (title) and archive channel. (Currently only AVI type is supported.)

You can see the status while you are archiving.



Check event log & video and making a backup on the same page. (same as event search)

# 9. Book mark



1) On playback mode, click "Book Mark" & "Start"



2) Check the channel and click "Stop"







4) Click "Backup" to Start to archive

When you see playback, you make mark on starting time and on ending time just like you use bookmark when you read books. Bookmarked data can be archived right here if necessary or can stay in event log list.

Differently from other DVRs, you don't have to get out of playback to go to archive menu again.