

## FIELDMIXER PRESSMIXER

Selected sound source suits for the video with high completion.

Reliable sound making tool is necessary for various video shooting scenes.

Which mixer do you choose?

Pursuing of a better sound quality !!

Excellent compact tool to gather intended sound sources.

**HYPER  
LIMITER**

All models of FIELDMIXER series are equipped with the Hyper Limiter with unique technology of PROTECH.

302P

305

300

40X

405

805

ALL FIELDMIXERS

Each channel is equipped with Hyper Limiter independently.

Change of sound quality by compression becomes minimum by the limiter equipped to the input same as desk-top mixer which is different form current compact mixers.

It has the characteristic to react instantly to the sharply affecting sudden excessive volume and to keep sound distortion at almost zero condition.

Thanks to Hyper Limiter, the accident of recording can be avoided as much as possible.

Independent Hyper Limiter of each channel makes real recording of the source possible which doesn't destroy the assigned-position of the sound image.

Quick active, natural release

Hyper Limiter doesn't cut the part which exceeded some constant volume and has the performance to leave form itself of the wave and suppress to the area where there is not distortion.

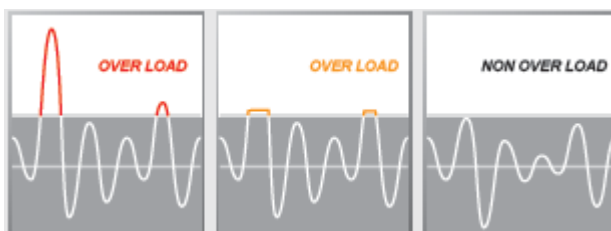
It realized the smooth limiter cancellation which doesn't destroy sound image by the natural release after suppressing an excessive input sound.

It specially shows power for the recording of the source intermingled with the impact sound.

No Limiter

Standard Limiter

Hyper Limiter



VU/PK

VU / PK switchable meter can support volume adjustment more strongly.

302P

305

300

40X

405

805

ALL FIELDMIXERS

## Equipped with 2 way switchable meter of VU and PEAK

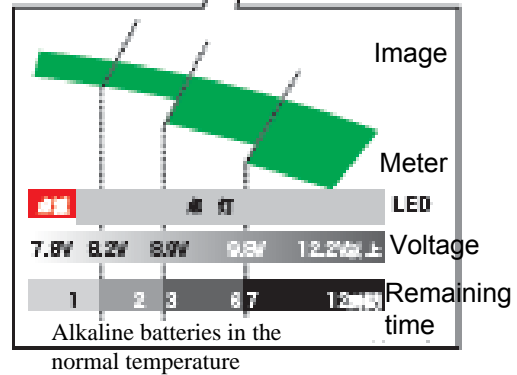
VU meter can show the volume sense just as it is which the ear of the person feels and it is widely used generally.

PEAK meter is often used for the digital recorder. It displays the peak value of the sound pressure.

VU/PEAK meter can be switched instantly by the switch on the front operation panel. You can confirm both of VU level and PEAK level of the same sound at the same time. With this, the level adjustment to have considered a recorder characteristic is possible.

## Remaining amount display of the battery

To prevent a trouble of the exhaustion of a battery, battery remaining amount is displayed in 3 steps on the meter. With this, drive possible time can be known roughly.



## Why VU meter and PEAK meter are necessary?

The displayed value of VU meter is 0.3 second average, and it is suitable for an analogue recorder which displays the value from  $-20\text{dB}$  to  $+3\text{ dB}$ .

The displayed value of PEAK meter is a maximum in the moment of the input signal, and it is used for the recent digital recorder and so on. It stands up quickly within about 10 milliseconds and returns slowly within about 1.5 seconds. The display range of PEAK meter is  $-60\text{dB}$  to  $0\text{dB}$ , and it displays widely from the input of the low level to the mega volume.

When the excessive signal inputs, the output sound of the digital recorder has extreme distortion or becomes no sound condition. Therefore, it becomes necessary to confirm that the input signal is not over than  $0\text{dB}$  which is the possible recording level of a digital recorder.

EQ

Independent equalizer of each channel.  
Simple adjustment of the control  
volume of FRQ and LEVEL

302P

305

300

40X

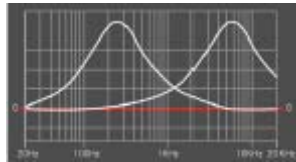
405

805

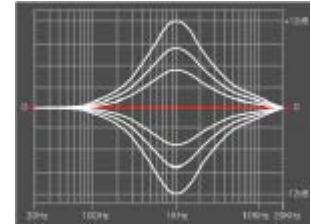
## Each channel is equipped with an independent equalizer

By using the filter for the sound freely, recording close to the hearing of the person becomes possible. Simple 2 control volumes (range and volume) are equipped to each channel in order to make speedy adjustment possible.

EQ FRQ characteristic



EQ LEVEL characteristic



Audio range can be set from 250Hz to 8kHz freely by FRQ control volume. The range set by FRQ control volume can be set from  $-12\text{dB}$  to  $+12\text{dB}$  by LEVEL control volume, and the emphasis or the suppression of the range is possible.

Low  
Cut

Low cut filter

302P

305

300

40X

405

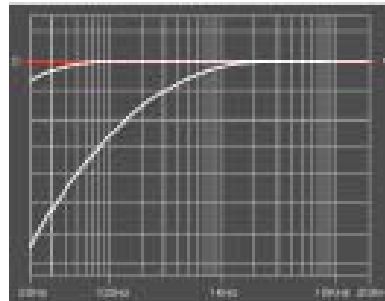
805

ALL FIELDMIXERS

## It reduces a natural noise powerfully.

In case of recording in the street corner, there is much low band noise such as the wind noise. Variable bandwidth of the low cut filter was enlarged to correspond this noise. Furthermore, interview sound can be recorded more clearly separated from the noise by the reconsideration of the filter characteristic.

LOW CUT bandwidth characteristic



The feature which was born from the  
opinion of the operators

It secures visibility in the darkness.

Volume LED and meter back light are equipped in order to secure the visibility in the darkness. And light ON/OFF switch is equipped on the front panel in consideration of the case to save electric power.



## INPUT

302P 305 300 40X 405 805

ALL FIELDMIXERS

### Channel fader with good operability

Input channel fader is compact, but it has fitting feel and weight. So, it is suitable for subtle adjustment. Also, LED is equipped at the volume point to secure the visibility in the darkness.



### It secures a wide input range.

Input terminal is Canon 3pin connector. Input mode is 3 mode switchable of [P-MIC] phantom microphone, [D-MIC] dynamic microphone, [LINE] line microphone. By this, more speedy setting becomes possible. Input level setting mode is from -70dBm to -30dBm for microphone input and from -30dBm to +4dBm for line input. The subtle range adjustment is possible. Phantom power supply is 2 types of P-48 and AB-12, and the intermingling use every each channel is possible.

## OUTPUT

302P 305 300 40X 405 805

ALL FIELDMIXERS

### Master output level of the 4 position composition

Master output terminal is Canon 3pin connector and the output of 4 position composition, +4/0/-20/-60dBm can be set to L/R channel independently. By this function, it can be corresponded to the recorders with various input level. Furthermore, RCA terminal is equipped as a sub terminal considering audio back up recording.

### The feature which was born from the opinion of the operators

302P 305 300 40X 405 805

### Master volume of pop-up type prevents wrong operation.

By making master volume pop-up type, the careless wrong operation can be prevented.



### Headphone jacks are equipped on the front panel and the side panel.

φ 6.3 headphone jack is equipped on the front panel and φ 3.5 mini jack is equipped on the side panel. Monitoring by 2 headphones at the same time is possible.

## POWER ACCESSORY

302P 305 300 40X 405 805

### Slide battery case is adapted.

By adopting a slide battery case, the battery exchange became easy. This battery case can store eight double A (unit 3) batteries. The attaching or removing of a battery case became possible with single touch.









FS-302P can operate continuously for equal to or more than about 14 hours when the eight alkaline double A (unit 3) batteries are used by succeeding of a low power consumption.

### Slide battery case

LR-68



## Comparison of specifications

Model	FS-302P	FS-305	FS-300	FS-40X	FS-405	FS-805
						
Type L	-	-	w/o carrying case	w/o carrying case		w/o EXT connector
<b>Connector Type</b>						
A Type	In F / Out M	Standard	Standard	Standard	Standard	Standard
B Type	In M / Out F	Order	Order	Order	Order	Order
C Type	In M,F / Out F,M	Order	Order	Order	Order	-
<b>Audio Input Part</b>						
Input CH	3ch	3ch	3ch	4ch	4ch+RCA stereo	8ch
Input type	Trans	Trans	Trans	Trans	Trans	Trans
MIC Input range	-70~-36dBm	-70~-36dBm	-70~-36dBm	-70~-36dBm	-70~-36dBm	-70~-36dBm
LINE Input range	-30~+4dBm	-30~+4dBm	-30~+4dBm	-30~+4dBm	-30~+4dBm	-30~+4dBm
RCA Input	---	---	---	---	-10dBm	---
Head Room	More than 30dB	More than 30dB	More than 30dB	More than 30dB	More than 30dB	More than 30dB
Impedance MIC	600 Ω ± 10%	600 Ω ± 10%	600 Ω ± 10%	600 Ω ± 10%	600 Ω ± 10%	600 Ω ± 10%
Impedance LINE	600 Ω ± 10%	600 Ω ± 10%	600 Ω ± 10%	600 Ω ± 10%	600 Ω ± 10%	600 Ω ± 10%
F characteristic	LINE: ± 3dB	20~20kHz	40~20kHz	40~20kHz	50~15kHz	60~18kHz
S/N MIC: at -70dBm input	60dB	60dB	60dB	60dB	60dB	59dB
LINE: at +4dBm input	70dB	72dB	72dB	67dB	67dB	67dB
Distortion MIC: at -70dBm input	less than 0.15%	less than 0.14%	less than 0.14%	less than 0.16%	less than 0.14%	less than 0.3%
LINE: at +4dBm input	less than 0.04%	less than 0.04%	less than 0.04%	less than 0.06%	less than 0.06%	less than 0.2%
MIC Power: set st each CH	+48V/AB-12V	+48V/AB-12V	Order	+48V/AB-12V	+48V/AB-12V	+48V/AB-12V
MS MIC Input	---	---	---	OK	---	---
P.F.L	---	---	---	OK	OK	OK
<b>Limiter</b>						
Hyper Limiter at each CH	Independent	Independent	Independent	Independent	Independent (Canon)	Independent
Hyper Limiter ON/OFF switch	OK	OK	OK	OK	OK (Canon Input)	OK
3-step variable limiter output	OK	---	---	OK	---	---
<b>Oscillator</b>						
1kHz generator	OK	OK	OK	OK	OK	OK
<b>Equalizer</b>						
Number of Input	---	Independent, CH	---	Independent, CH	Independent, CH	Independent, CH
FRQ	---	250~8kHz	---	250~8kHz	250~8kHz	250~8kHz
LEVEL	---	-12dB~+12dB	---	-12dB~+12dB	-12dB~+12dB	-12dB~+12dB
LCF	20~300Hz -12dB/OCT	20~300Hz -12dB/OCT	20~300Hz -12dB/OCT	20~300Hz -12dB/OCT	20~300Hz -12dB/OCT	20~300Hz -12dB/OCT
<b>Display Part</b>						
Meter display (Switchable)	A/B/BATT	L/R/BATT	L/R/BATT	L/R/BATT	L/R/BATT	L/R/BATT
Meter VU display (Switchable)	OK	OK	OK	OK	OK	OK
Meter PEAK display (Switchable)	OK	OK	OK	OK	OK	OK
Remain batte display (Return type)	OK	OK	OK	OK	OK	---
Channel Fader LED	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
Meter Back-light	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	Light always
External Meter Bridge	---	---	---	Option MB-40X	---	---
Peat Indicator	OK	OK	---	OK	OK	OK
Direct Output Display	OK	OK	---	OK	---	---
Battery Empty Display	Blink at 30M remain	Blink at 30M remain	Blink at 30M remain	Blink at 30M remain	Blink at 30M remain	---

# PROTECH®

Model	FS-302P	FS-305	FS-300	FS-40X	FS-405	FS-805
						
<b>Audio Output Part</b>						
Output CH	A/B stereo	L/R stereo	L/R stereo	L/R stereo	L/R stereo 2CH	L/R stereo 2CH
Output type	Trans	Electronic balance	Electronic balance	Electronic balance	Electronic balance	Trans
RCA OUT	RCA + Stereo mini-jackx2	OK	OK	OK	OK	OK
Main Output level L	+4/0/-20/-60	+4/0/-20/-60	+4/0/-20/-60	+4/0/-20/-60	+4/0/-20/-60	+4
Main Output level R	+4/0/-20/-60	+4/0/-20/-60	+4/0/-20/-60	+4/0/-20/-60	+4/0/-20/-60	+4
Sub Output level RL/	-10 (stereo mini-jack)	---	---	-20/-60	+4/0/-20/-60	-20/-60
Direct Output function	---	---	---	OK	---	---
Output Fader to prevent wrong operation	Pop-up type	Pop-up type	Pop-up type	Pop-up type	Pop-up type	Pop-up type
Slide Fader function	---	---	---	OK	---	---
<b>Hearphone Monitor</b>						
φ6.3 stereo standard jack	OK	OK	OK	OK	OK	OK
φ3.5 stereo mini jack	OK	OK	OK	OK	OK	---
<b>Power supply</b>						
8 double A (unit 3) batterie A bat	Slide battery case	Slide battery case	Slide battery case	Slide battery case	Slide battery case	---
AC Power	Option: AC-FS5	Option: AC-FS5	Option: AC-FS5	Option: AC-FS5	Option: AC-FS5	---
Canon 4pin Input	OK	OK	OK	OK	OK	OK
Operating voltage	DC9V~18V	DC9V~18V	DC9V~18V	DC9V~18V	DC9V~18V	DC9V~18V/AC
Power consumption	0.12A	0.11A	0.11A	0.16A	0.14A	0.32A
External Power Output connector	---	OK	OK	OK	OK	---
<b>Dimension</b>						
approx. WxHxD (mm)	180x58x141	180x60x154	180x60x154	181x60x160	206x60x172	430x88x280
<b>Weight</b>						
approx. weight (kg)	1.6	1.5	1.5	1.8	1.9	5.8
<b>Main Application</b>						
	ENG/EFP	ENG/EFP/Bridal	ENG/EFP/Bridal	ENG/EFP/Bridal	ENG/EFP/Bridal/ Small OB Van	EFP/OB Van/ Studio

## Carrying Case (L type: optional)

### SC-302



For FS-302P

### SC-305/SC-40X



For FS-300/305/40X

### SC-405



For FS-405

## Connector type Photo:FS-302P

### A type



Input: Female



Output: Male

### B type



Input: Male



Output: Female