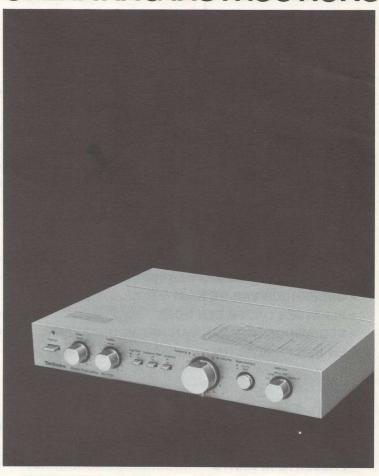
Technics

Stereo Preamplifier

SU-CO1 SU-CO1K OPERATING INSTRUCTIONS



SU-C01K is different in appearance and color-tone.

CONTENTS • FRONT PANEL CONTROLS AND • FOR UNITED KINGDOM 2 THEIR FUNCTIONS 5 • FOR AUSTRALIA 2 • RECORDING 6 • TROUBLESHOOTING GUIDE 7 • FOR LONG AND SAFE USE OF THIS UNIT 2 • MAINTENANCE OF EXTERNAL SURFACES 4 • TECHNICAL SPECIFICATIONS 9 • TO RAISE THE FRONT 4 • ACCESSORIES 9 INHALT GERÄTEVORDERSEITE UND IHRE FUNKTIONEN 13 VOR DER INBETRIEBNAHME10 • FÜR LANGEN UND GEFAHRLOSEN BETRIEB • AUFNAHME14 • LISTE VON FEHLERMÖGLICHKEITEN15 10 - 17DIESES GERÄTES10 • WARTUNG12 • TECHNISCHE DATEN17 • ANHEBEN DER GERÄTEVORDERSEITE12 • ZUBEHÖR17 • BEDIENUNGSELEMENTE AN DER TABLE DES MATIERES AVANT LE FONCTIONNEMENT18 COMMANDES DU PANNEAU AVANT ET LEURS • POUR PERMETTRE UNE UTILISATION PLUS FONCTIONS21 18~25 • ENREGISTREMENT22 LONGUE ET PLUS SURE DE CET APPAREIL18 • ENTRETIEN DES SURFACES EXTERNES20 • GUIDE DU DEPANNAGE23 • LEVER L'AVANT20 DONNEES TECHNIQUES25 • ACCESSOIRE25 INHOUD VOOR HET IN GEBRUIK NEMEN26 • OPNEMEN30 • GIDS VOOR HET VERHELPEN VAN VOOR LANG EN VEILIG GEBRUIK......26 STORINGEN 31 26~33 ONDERHOUD VAN DE KAST28 • TECHNISCHE GEGEVENS33 PLAATSEN ONDER EEN HOEK28 • TOEBEHOREN33 • BEDIENINGSORGANEN VAN HET VOORPANEEL EN HUN FUNCTIE29 INDICE • ANTES DE HACER FUNCIONAR EL APARATO ...34 CONTROLES DEL PANEL DELANTERO v SUS RESPECTIVAS FUNCIONES......37 • PARA UN USO PROLONGADO y SEGURO DEL • GRABACION38 PRESENTE APARATO34 GUIA PARA LA LOCALIZACION • MANTENIMIENTO DE LAS SUPERFICIES DE LAS FALLAS39 EXTERNAS36 ESPECIFICACIONES TECNICAS41 • PARA ALZAR LA PARTE DELANTERA36 • ACCESORIOS41 INNEHALL • FÖRE ANVÄNDNING42 FÖR LÄNGRE OCH TRYGGARE ANVÄNDNING AV • NÅGRA RÅD FÖR LÄNGRE OCH TRYGGARE DENNA APPARAT45 • INSPELNING46 ANVÄNDNING......42 • FELSÖKNINGSSCHEMA47 • UNDERHÅLL44 • TEKNISKA SPECIFIKATIONER49 HÖJNING AV FRONTEN44









● TILLBEHÖR......49

Dear Stereo Fan

We want to thank you for selecting this product and to welcome you to the growing family of satisfied Technics product owners around the world.

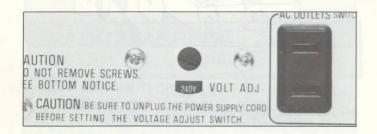
We feel certain you will get maximum enjoyment from this new addition to your home.

Please read these operating instructions carefully, and be sure to keep them handy for convenient reference.

BEFORE USING THIS UNIT

Use a minus (-) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the set will be used.

Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries; the correct voltage is already set.)



FOR UNITED KINGDOM

Important

THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL BROWN: LIVE

As the colours of the wires in the mains lead of this unit may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

FOR AUSTRALIA

For your safety

To ensure safe operation the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.

Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.

The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, consult a qualified electrician.

FOR LONG AND SAFE USE OF THIS UNIT

1) USE AN ORDINARY HOUSEHOLD AC POWER SOURCE

■ Use from an AC power source of high voltage, such as for air conditioners, is very dangerous.

Be extremely careful not to make a connection to the electrical outlet for a large air conditioner or central-heating unit which uses high voltage, because there is the possibility of fire.

A DC power source cannot be used.

Be sure to check the power source carefully, especially on a ship or other place where DC is used.



2) CONNECTION AND DISCONNECTION OF THE POWER CORD PLUG

Wet hands are dangerous.

A dangerous electric shock may result if the plug is touched by wet hands.

Don't pull the power cord.

Always grasp the plug; never pull the cord itself.



FOR LONG AND SAFE USE OF THIS UNIT (continued)

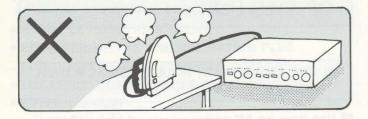
3) AC OUTLETS ON REAR PANEL (NOT EQUIPPED FOR SOME COUNTRIES)

Any equipment connected here should have specified power consumption or less.

These outlets are exclusively for the connection of other audio equipment, such as a tape deck. Be sure the power consumption of each does not exceed wattage specified near the AC outlets.

Never connect other electrical appliances such as an iron or toaster.

If appliances with a large power consumption are connected, an unexpected accident might occur as a result of overheating.



4) NEVER ATTEMPT TO REPAIR OR RECON-STRUCT THIS UNIT

A serious electric shock might occur if this unit is repaired, disassembled or reconstructed by unauthorized persons, or if the internal parts are accidently touched.



5) FOR FAMILIES WITH CHILDREN

Never permit children to put anything, especially metal, inside this unit. A serious electric shock or malfunction could occur if articles such as coins, needles, screwdrivers, etc. are inserted into this unit.



6) TURN OFF AFTER USE

If the unit is left for a long time with the power on, this will not only shorten its useful operation life, but may also cause other unexpected trouble.



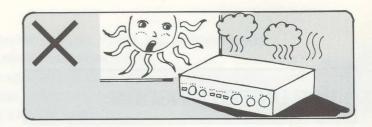
7) IF WATER IS SPILLED ON THE UNIT

Be extremely careful if water is spilled on the unit, because a fire or serious electric shock might occur. Immediately disconnect the power cord plug, and consult with your dealer.



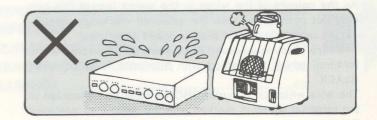
8) PLACE THE UNIT WHERE IT WILL BE WELL VENTILATED, AND AWAY FROM DIRECT SUNLIGHT

Place this unit at least 10 cm (4") away from wall surfaces, etc., and away from direct sunlight.



9) KEEP THE UNIT AWAY FROM STOVES, ETC.

Heat can damage the external surfaces as well as internal circuits and components.



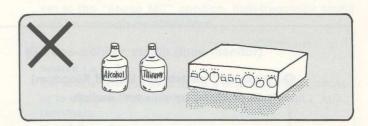
10) AVOID SPRAY-TYPE INSECTICIDES

Insecticides might cause cracks or "cloudiness" in the cabinet and plastic parts of this unit. The gas used in such sprays might, moreover, be ignited suddenly.



11) NEVER USE ALCOHOL OR PAINT THINNER

These and similar chemicals should never be used to clean the cabinet, because they may damage the finish.



IF TROUBLE OCCURS

If, during operation, the sound is interrupted or indication lamp no longer illuminates, or if abnormal odor or smoke is detected, immediately disconnect the power cord plug, and contact your dealer or an Authorized Service Center.

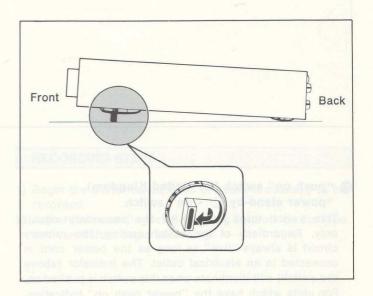
MAINTENANCE OF EXTERNAL SURFACES

To clean, use a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth soaked in a detergent (such as used for washing dishes; diluted to 1/5 or 1/6 strength), and then wring the cloth well. Wipe once again with a soft; dry cloth. Never use chemicals such as alcohol, paint thinner and benzine, nor a chemically-treated cloth, to clean this unit because the finish may be damaged or lose its luster.

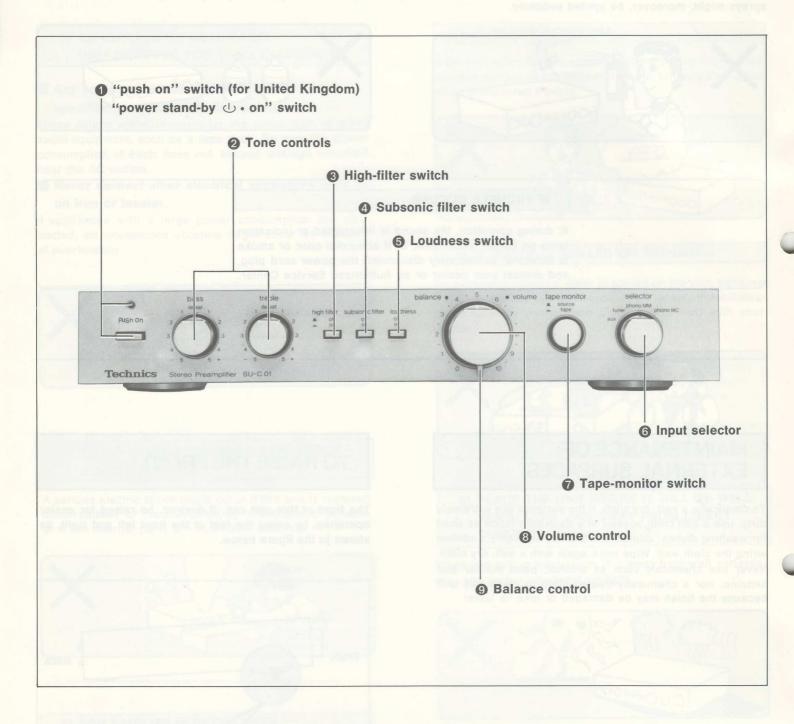
The name plate is located on the bottom.

TO RAISE THE FRONT

The front of this unit can, if desired, be raised for easier operation, by using the feet at the front left and right, as shown in the figure below.



FRONT PANEL CONTROLS AND THEIR FUNCTIONS



● "push on" switch (for United Kingdom) "power stand-by • on" switch

This switch turns on and off the secondary circuit only. Regardless of the switch setting, the primary circuit is always "live" as long as the power cord is connected to an electrical outlet. The indicator (above the switch) will illuminate when this switch is pushed on. For units which have the "power push on" indication, however, this switch turns on and off all (both primary and secondary) of the power to the unit.

Note:

Be sure to set the volume control® to its minimum ("0") position before turning on the power.

2 Tone controls (bass-treble)

The bass control is for adjustment of the tonal quality of low-range sound, and the treble control for high-range sound.

When these controls are set to the "defeat" position, note that the capacitors and other controls which influence frequency response are mechanically separated from the circuitry, resulting in a perfectly flat frequency response, free of undulation.

High-filter switch (high filter)

Set this switch to the "on" position (— _) to eliminate such high-frequency noises as "scratch" noise caused by dirt and dust on discs, "hiss" noise heard from tapes, etc.

Subsonic filter switch (subsonic filter)

Set this switch to the "on" position () to eliminate such ultra-low-frequency noises as distortion caused by a warped disc (which causes excessive vibration of the woofer cone), motor "rumble," etc.

6 Loudness switch (loudness)

The human ear usually has difficulty in hearing low-frequency sounds at a low volume level.

This switch should be set to the "on" position (___), therefore, in order to compensate for this problem when listening at low volume level, and sound can be heard dynamically even under those conditions.

6 Input selector (selector)

The input selector is used to select sound to be heard, such as a disc, radio broadcast, etc.

aux:

Set to this position to listen to sound from equipment connected to the auxiliary input ("AUX") terminals.

tuner:

Set to this position to listen to radio broadcasts.

phono MM:

Set to this position to listen to discs which are played by using a moving-magnet (MM type) cartridge, a high-output moving-coil cartridge, or an induced-magnet (IM type) cartridge.

phono MC:

Set to this position to listen to discs which are played by using a moving-coil (MC type) cartridge.

Note:

If a moving-coil type of cartridge is used with the input selector set to the "phono MM" position, the volume level will seem inadequate. If, conversely, a moving-magnet type of cartridge is used with the input selector set to the "phono MC" position, high-frequency sound will be excessively attenuated.

7 Tape-monitor switch (tape monitor)

source (____):

Set to this position to listen to a disc, a radio broadcast, or to equipment connected to the auxiliary input ("AUX") terminals.

tape (___):

Set to this position for playback of recorded tapes. This position can also be used, during tape recording, to confirm the condition of the recording if the tape deck being used is the 3-head type (recording monitoring). To do so, set to the "source" position to hear sound immediately before it is recorded, and set to the "tape" position to listen to the sound immediately after it has been recorded. Alternately set to the 2 positions to check the recording condition.

3 Volume control (volume)

Balance control (balance)

Use this control for adjustment of the reception of AM broadcasts and other monaural broadcasts, or to adjust the sound so that it seems to be heard from the center, between the speakers, by setting the stereo/monaural selector of the power amplifier (if it has one) to the "mono" position.

RECORDING

BEFORE RECORDING

Make connections to the recording-output terminals ("REC OUT") of this unit and to the tape deck. Refer to the operation instructions sheet included.

For recording, the recording output level of discs, radio broadcasts, etc. will be constant, unaffected by the tone controls, volume control, loudness switch, etc.

RECORDING STEPS

- Begin the performance (disc or radio broadcast) to be recorded.
- Adjust the recording level by using controls on the tape deck, and then begin recording.

TROUBLESHOOTING GUIDE

Before requesting service for this unit, check this table to determine if the problem can be solved as described below. If the problem still persists after making these checks, or if there are symptoms of malfunction not described in this table, it is recommended that you consult the store where this unit was purchased or your local Service Center (see list included) for further information and assistance.

Note:

The information shown in this table is based upon the use of this unit in combination with the Technics SE-C01 and ST-C01.

	Problem	Probable cause(s)	Suggested remedy
During disc play	A loud and unusual sound ("howling") is heard when the volume level is increased.	The location of the record player and speaker systems is unstable.	 Set the subsonic filter switch (a) to the "on" position ((aa)). If the equipment is unstable because it is located upon a soft surface, such as a carpet, place a solic material (such as concrete blocks, bricks, a hard board, etc.) beneath the speaker systems. Close the cover of the record player. Try moving the record player farther away from the speaker systems. Try placing a cushioning material (such as felt or commercially available audio insulators) beneath the record player.
	Unusual scratching noises are heard.	Disc is old or scratched.	 Turn the treble tone control ② to reduce the treble sound.
		Dust in disc grooves.	 Use a disc cleaner to remove the dust from the disc grooves.
		Stylus needle is worn.	 If the noise is heard even when a new disc is played, probably the stylus is worn. Replace it with a new stylus.
	ly setting the atensormor	Dust is attached to stylus tip.	 Remove the dust by using a soft brush.
	The sound lacks clarity and volume.	The input selector (a) is incorrectly set to the "phono MM" position when a moving-coil type cartridge is being used.	• Set the input selector (6) to the "phono MC" position
	The high-frequency range cannot be clearly heard.	The input selector (6) is incorrectly set to the "phono MC" position when a moving-magnet type of cartridge is being used.	•Set the input selector ⑥ to the "phono MM" position
While listening to FM broadcasts	An unusual hissing noise is heard when listening to the broadcast in stereo, but not heard when listening monaurally.	A slight noise may be heard because the method used for modulation of FM stereo broadcasts is different than that used for monaural broadcasts.	 Try reducing the treble sound by turning the treble tone control ②. Set the muting/FM mode selector of the tuner to the "off/mono" position. (Note that the broadcast will then be heard as monaural sound.)
	Noise is excessive in both stereo and monaural broadcasts.	Poor location and/or direction of the antenna. Transmitting station is too far away.	 Try changing the location, height and/or direction of the antenna. If an interior antenna is being used, change to an exterior antenna. Try using an antenna with more elements.
	The FM stereo indicator of the tuner flickers, without completely illuminating.	Poor location and/or direction of the antenna. Transmitting station is too far away.	 Try changing the location, height and/or direction of the antenna. If an interior antenna is being used, change to an exterior antenna. Try using an antenna with more elements.
	Sound is distorted and/ or the volume level becomes low.	Broadcast signals are being disturbed. Nearby automobile traffic or airplanes.	entitione to the same parameters and or an accompanion when the same to the sa
	Excessive noise in stereo broadcasts; sometimes no sound is emitted.	Poor location and/or direction of the antenna. Transmitting station is too far away.	or yet manufactor, amoreted an illigation, association and the control of the con
	Excessive distortion in the sound of stereo broadcasts.	Nearby building or mountain. [Multi-path distortion is being caused by the mutual interference of broadcast signals received directly from the transmitting station (direct waves) and signals being reflected from nearby buildings or mountains (reflected waves).]	

	Problem	Probable cause(s)	Suggested remedy
	An unusual "popping" noise is heard when automobiles pass.	Such noise is called ignition noise, and occurs while the automobile engine is running.	 Relocate the antenna and the connection wires leading to it to a place farther away from where auto- mobiles pass.
	A strange hissing noise is produced continuously or intermittently.	Caused by the "discharge phenomenon" and the "oscillation phenomenon" of electric appliances (such as fluorescent lights, TV, small series-type motors, rectification equipment, etc.).	 Try placing this unit farther away from such equipment. Install noise-prevention equipment on this unit or on the electric appliance.
While listening to AM broadcasts	An unusual "beat" sound is heard.	Unit is being used at the same time as the television set. Interference (10-kHz "beat") from adjacent	 Turn off the television set, or use this unit farther away from it. By using the treble tone control ②, try reducing
	A low-pitched "hum" sound is heard when the	broadcast signal. The antenna connection wires are too close to the power cord.	the treble sound. Place the antenna connection wires and the power cord farther apart.
	broadcast is tuned.	The power supply frequency from the power cord is modulated and heard from the speakers.	Try reversing the connection of the power cord plug.Install a special exterior antenna.
	A strange hissing noise is produced continuously or intermittently.	Caused by the "discharge phenomenon" and the "oscillation phenomenon" of electric appliances (such as fluorescent lights, TV, small series-type motors, rectification equipment, etc.).	 Try placing this unit farther away from such equipment. Install noise-prevention equipment on this unit or on the electric appliance.
	Power of power amplifier is still on even though power to this unit has been turned off.	The power cord of the power amplifier is connected to the "UNSWITCHED" outlet of this unit.	Connect the power cord to the "SWITCHED" outlet of this unit.
	No sound is heard when the power is turned on.	The power cord plug is not completely inserted.	Confirm that the power cord plug is connected completely.
		The power supply fuse has failed.	Request the store where this unit was purchased, or a Service Center, to replace the fuse.
		Connections are incomplete or incorrect to the speaker systems, the tuner, the power amplifier, etc.	Check to be sure that all connection wires are correctly connected.
Problems noted at all times		The setting of the input selector (6) has not been completely or correctly made. The tape-monitor switch (7) is incorrectly set to the "tape" (1-1) position.	 Check to be sure that the selector is set to the correct position. Except for tape playback, set the tape-monitor switch to the "source" () position.
	When listening to stereo sound, each sound of the various musical instruments is not heard from its correct position.	Headphones are connected. The positive (+) and (-) negative connections of the speaker connection wires are reversed.	Disconnect the headphones from this unit. Reconnect the speaker connection wires so that the positive and negative connections are correct.
	When listening to stereo sound, the left and right	The left and right connections of the speaker connection wires are reversed.	Check the connections of the speaker connection wires and make them correctly.
	sounds are reversed.	The left and right connections of the connection wires connected to other equipment are reversed.	Check the connections of the connection wires to other equipment and make them correctly.
	A low-pitched noise ("hum" or "buzz") is heard.	The power cord or a fluorescent light, etc., is near the connection wires.	 Try separating this unit and the electric appliance as far as possible. Reverse the connection of the power cord plug.
		The connection of the ground wire is incorrect or incomplete.	Check to be sure that the grounding connection is correct. If the unit is not grounded, try doing so.
	Sound is not heard from the speaker system on one side.	The speaker connection wires are disconnected. The balance control (9) is not set to the center	Check and correct the connections of the speaker connection wires. Set the mark on the balance control to the center.
	one side.	position.	position.
	The volume level for a radio broadcast is dif- ferent from that for disc play.	The strength of the broadcast signal is not the same as the output from the record player.	Adjust the volume level by using the volume control
	While listening, sound is suddenly no longer heard. (Indication lamps of other equipment are still illuminated.)	A DC component is mixed with the input. (The protection circuitry of the power amplifier has functioned.)	• Check the connections to other equipment (especially the speaker connection terminals, etc.), and, if still no sound is heard, request service from the store where the unit was purchased or from your local Service Center.

TECHNICAL SPECIFICATIONS

(DIN 45 500)

AMPLIFIER SECTION

Total harmonic distortion

TUNER, AUX, TAPE 0.003%

(at 3V output and max. volume)

0.005% PHONO MM, MC

(at 3V output and -20 dB volume)

Input sensitivity and impedance

PHONO MM $2.5 \text{ mV}/47 \text{k}\Omega$

MC $100 \mu V/47\Omega$ TUNER, AUX 150 mV 47kΩ

TAPE 150 mV 47kΩ

PHONO maximum input voltage (1 kHz, RMS)

200 mV MM

MC 8 mV

S/N

rated power

PHONO MM 75 dB (88 dB, IHF, A)

MC 66 dB (78 dB, IHF, A)

TUNER, AUX 87 dB (IHF, A: 100 dB)

-26 dB power

PHONO MM 63 dB

> 63 dB MC

TUNER, AUX 65 dB

Frequency response

RIAA standard curve PHONO

±0.2 dB (30 Hz~15 kHz)

TUNER, AUX, TAPE 3 Hz~100 kHz, -1 dB

+0, -0.05 dB, 20 Hz~20 kHz

Tone controls

50 Hz, +10 dB~ −10 dB BASS

TREBLE 20 kHz, $+10 dB \sim -10 dB$ Subsonic filter 30 Hz, -6 dB/oct.

7 kHz, -6 dB/oct. High filter

50 Hz, +9 dB Loudness control (volume at -30 dB)

Output voltage

OUTPUT rated 1 V

max. 7 V

9W

REC OUT 150 mV

Channel balance, AUX 250 Hz~6,300 Hz ±1 dB

55 dB Channel separation, AUX 1 kHz

GENERAL

Power consumption

AC 50 Hz/60 Hz, 110V/120V/220V/240V Power supply

Dimensions (W×H×D) $297\times49\times241~\text{mm}$

 $(11-11/16" \times 1-15/16" \times 9-1/4")$

3 kg Weight

(6.6 lb.)

ACCESSORIES

Stereo pin-type connection cord

МЕМО	

Matsushita Electric Trading Co., Ltd.

P.O. Box 288, Central Osaka Japan

Printed in Japan SQX50577-1 F0379M1